FIGURE 1329

CCAGCCTCGGAGGGAGGGATTAGAAGCCGCTAGACTTTTTTTCCTCCCCTCTCAGTAGCACGGAGTCCGAATTAA
TTGGATTTCATTCACTGGGGAGGAACAAAAACTATCTGGGCAGCTTCATTGAGAGAGATTCATTGACACTAAGAG
CCAGCGCTGCAGCTGGTGCAGAGAGAACCTCCGGCTTTGACTTCTGTCTCGTCTGCCCCAAGGCCGCTAGCCTCG
GCTTGGGAAGGCGAGGCGGAATTAAACCCCGCTCCGAGAGCGCACGTTCGCGCGCGGTGCGTCGGCCATTGCCTG
CCCCGAGGGGCGTCTGGTAGGCACCCCGCCCTCTCCCGCAGCTCGACCCCC**ATG**ATAGATACGCTCAGACCCGTG
CCCTTCGCGTCGGAAATGGCGATCAGCAAGACGGTGGCGTGGCTCAACGAGCAGCTGGAGCTGGGCAACGAGCGG
CTGCTGCTGATGGACTGCCGGCCGCAGGAGCTATACGAGTCGTCGCACATCGAGTCGGCCATCAACGTGGCCATC
CCGGGCATCATGCTGCGGCGCCTGCAGAAGGGTAACCTGCCGGTGCGCGCGCTCTTCACGCGCGGCGAGGACCGG
GACCGCTTCACCCGGCGCTGTGGCACCGACACAGTGGTGCTCTACGACGAGAGCAGCAGCGACTGGAACGAGAAT
ACGGGCGGCGAGTCGTTGCTCGGGCTGCTGCTCAAGAAGCTCAAGGACGAGGGCTGCCGGGCGTTCTACCTGGAA
GATGAAGCCCGGGGCAAGAACTGTGGTGTCTTGGTACATTGCTTGGCTGGCATTAGCCGCTCAGTCACTGTGACT
GTGGCTTACCTTATGCAGAAGCTCAATCTGTCGATGAACGATGCCTATGACATTGTCAAAATGAAAAAATCCAAC
ATATCCCCTAACTTCAACTTCATGGGTCAGCTGCTGGACTTCGAGAGGACGCTGGGACTCAGCAGCCCATGTGAC
AACAGGGTTCCAGCACAGCAGCTGTATTTTACCACCCCTTCCAACCAGAATGTATACCAGGTGGACTCTCTGCAA
TCTACG**TGA**AAGACCCCACACCCCTCCTTGCTGGAATGTGTCTGGCCCTTCAGCAGTTTCTCTTGGCAGCATCAG
CTGGGCTGCTTTCTTTGTGTGTGGCCCCAGGTGTCAAAATGACACCAGCTGTCTGTACTAGACAAGGTTACCAAG
TGCGGAATTGGTTAATACTAACAGAGAGATTTGCTCCATTCTCTTTGGAATAACAGGACATGCTGTATAGATACA
GGCAGTAGGTTTGCTCTGTACCCATGTGTACAGCCTACCCATGCAGGGACTGGGATTCGAGGACTTCCAGGCGCA
TAGGGTAGAACCAAATGATAGGGTAGGAGCATGTGTTCTTTAGGGCCTTGTAAGGCTGTTTCCTTTTGCATCTGG
AACTGACTATATAATTGTCTTCAAGTGAAGACTAATTCAATTTTGCATATAGAGGAGCCAAAGAGAGATTTCAGC
TCTGTATTTGTGGTATCAGTGTTGGAAAAGAGAAATCTGATACTCCATTTGGATTATTGTAAATATTTGATCTTG
AATCACTTGACAGTGTTTGTTTGAATTGTGTTTGTTTTTTCCTTTGATGGGCTTAAAAGAAATTATCCAAAGGGA
GAAAGAGCAGTATGCCACTTCTTAAAACAGAACAAAACAAAAAAAGAAAATTGTGCTCTGTTGTAATCCAAAGGG
GAGATTTGCAGCATGCTTGACTTTACCAATTCTGATGACATCTTTACGGACACTATTATCACTAAGACCTTGTTA
TGGCGAAGTCTTTAGTCTTTTTCATGTATTTTCCTCATGATTTTTTCTCTTTATGTAGTTTGAGTATGCCTTACC
TTTGTAAATATTTTTGCTTGTGTTGTCGCAAAGGGGATAATCTGGGAAGACACCAAATCATGGGCTCACTTTAA
AA

FIGURE 1330

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MIDTLRPVPFASEMAISKTVAWLNEQLELGNERLLLMDCRPQELYESSHIESAINVAIPGIMLRRLQKGNLPVRA
LFTRGEDRDRFTRRCGTDTVVLYDESSSDWNENTGGESLLGLLLKKLKDEGCRAFYLEDEARGKNCGVLVHCLAG
ISRSVTVTVAYLMQKLNLSMNDAYDIVKMKKSNISPNFNFMGQLLDFERTLGLSSPCDNRVPAQQLYFTTPSNQN
VYQVDSLQST
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FIGURE 1331

GTGACAACCGGAAGCGGAAGTGAAAATGGGTGTCCCTGCTGCCTCTTAGCAACAAGAGGGGTCAAGTGACACAAC
CAGCTGACTCCCGTAGAGGAAGACACTGTGGAGGCCAGTTCTGGAGCTATTGCAGCCTCGGTTGCCCGGCCGGGG
ACCCGAGCCGAAAAGTTATCGTCAGA**ATG**TCGGGCAAAGACCGAATTGAAATCTTTCCCTCGCGAATGGCACAGA
CCATCATGAAGGCTCGTTTAAAGGGAGCACAGACAGGTCGAAACCTCCTGAAGAAAAAATCTGATGCCTTAACTC
TTCGATTTCGACAGATCCTAAAGAAGATAATAGAGACTAAAATGTTGATGGGCGAAGTGATGAGAGAAGCTGCCT
TTTCACTAGCTGAAGCCAAGTTCACAGCAGGTGACTTCAGCACTACAGTTATCCAAAATGTCAATAAAGCGCAAG
TGAAGATTCGAGCGAAGAAAGATAATGTAGCAGGTGTTACTTTGCCAGTATTTGAACATTACCATGAAGGAACTG
ACAGTTATGAACTGACTGGTTTAGCCAGAGGTGGGGAACAGTTGGCTAAATTAAAGAGGAATTATGCCAAAGCAG
TGGAACTACTGGTGGAACTAGCTTCTCTGCAGACTTCTTTTGTTACTTTGGATGAAGCTATTAAGATAACCAACA
GGCGTGTAAATGCCATTGAACATGTCATCATTCCCCGGATTGAACGTACTCTTGCTTATATCATCACAGAGCTGG
ATGAGAGAGAGCGAGAAGAGTTCTATAGGTTAAAGAAAATACAAGAGAAGAAAAAGATTCTAAAGGAAAAATCTG
AGAAGGACTTGGAGCAAAGGAGAGCAGCTGGAGAGGTGTTGGAGCCTGCTAATCTTCTGGCTGAAGAGAAGGACG
AGGATCTTCTATTTGAA**TAA**TCTTTCCTGTTCTGGTTCTTTGAGAAACCCTAACACTGGCTTCATTTTAATTCAC
AGTGTGTAGGTTTGATTTGTGTGGCTATTTATTTTTTGGCCTAAGAATTTCACTGGTTGTAAAATTTACCTAGAT
GTCTATTTATGGGATTACTTTTGCAGAATCATAATTTAGCAACCATTTATCATGGATGAAAGAGATCTGTAAAAC
CTGCCCAGGAACTTACAGAATTTACTTTGCAGAAGCGTTATCATACTCCATTTACATCTGTGTTACACGTGATCT
GCTTACCAAGCATATTAGGAAATACCTCTTAGGAAGCATTAGCGGTCTCAGGCCAATTACTGTGGAGCAGCTTTC
ATTCCTACCCACTTGCAAACCTTGGCGCTGTTGTCTGAGATTGCTGCAGCCATTCTTGTTACCATGGTACTTCTC
AAACTTTGTGAAAACCTGCACTTTTCCTTGCATGACAGGTTCCTGTCTTGTCTGTCATGGGAGCCATTCTGCCAA
TTTAAATGCGACTGTGGTATAAACAGTAAAATGATTTAAAAGTAAGTCATTCCGTTTTTATTAATTTACTGTTAA
GTCATGTTCTCATGCTCAGATCAGTAGTGTCAGCCAGAGCTTTCTCTGCAGACATGTAGGAAGTGGGTAGCTATT
TTTCCCACTCCATGTATTAGAGTTTTACAAAAAGGCTTACTTTTGAGACAACTGTTGCATTTTGGGGTACTAATA
AATGATTGCCGATGAGTTAAAAAAA

FIGURE 1332

MSGKDRIEIFPSRMAQTIMKARLKGAQTGRNLLKKKSDALTLRFRQILKKIIETKMLMGEVMREAAFSLAEAKFT
AGDFSTTVIQNVNKAQVKIRAKKDNVAGVTLPVFEHYHEGTDSYELTGLARGGEQLAKLKRNYAKAVELLVELAS
LQTSFVTLDEAIKITNRRVNAIEHVIIPRIERTLAYIITELDEREREEFYRLKKIQEKKKILKEKSEKDLEQRRA
AGEVLEPANLLAEEKDEDLLFE

FIGURE 1333

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GGGGAGAGAGTGGGGACGTCCGGCTTCGGAGCGGGAGTGTTCGTTGTGCCAGCGACTAAAAAGAGAATTAAATAT
GGGTGATGTTGAGAAAGGCAAGAAGATTTTTATTATGAAGTGTTCCCAGTACCACACCGTTGAAAAGGGAGGCAA
GCACAAGACTGGGCCAAATCTCCATGGTCTCTTTGGGCGGAAGACAGGTCAGGCCCCTGGATACTCTTACACAGC
CGCCAATAAGAACAAAGGCATCATCTGGGGAGAGGATACACTGATGGAGTATTTGGAGAATCCCAAGAAGTACAT
CCCTGGAACAAAAATGATCTTTGTCGGCATTAAGAAGAAGGAAGAAAGGGCAGACTTAATAGCTTATCTCAAAAA
AGCTACTAATGAGTAATAATTGGCCACTGCCTTATTTATTACAAAACAGAAATGTCTCATGACTTTTTTATGTGT
ACCATCCTTTAATAGATCTCATACACCAGAATTCAGATCATGAATGACTGACAGAATATTTTGTTGGGCAGTCCT
GATTTAAAACTAAGACTGGCTTGTGGTTAAATGAATATGTTCAGTTTTTGAATTTTAATAGTAACTCCAATTCAG
TAAATGGTATCACTGTTTACCCCTTTTAAAGATATGATTAGACTTCGTTAGTAATGTTCAACTTTTCACAAAGAT
GGTGAGTGCCATCTTAAAACTTACTGGAGATTGGTTTTATATTTAGATTTATATAACTGGTTATGTGAATATATT
TAAATACTGGGGAAATTGCTTCACTGTCTTAGAACCAAGCAAGATTCACCTGTGTTTTGTGTTCATGTTCATTTG
CCTCTTAAAGGCAAGGGTTGAAGATAAATAAGGTAGCAATGTCTATAGTTTTGGCCTTAACTATGCCAATCTAAT
TATAATTCCCTGTATTTAAAATGGTTTCTTTTACTTATTGAAAGGCATTTTAGTGTGGTTTATGTGTAATATTAA
AGATTATTCAACACCCCAAAAAAAAAAAAAAAAAAAAAAAAAAAA
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FIGURE 1334

MGDVEKGKKIFIMKCSQYHTVEKGGKHKTGPNLHGLFGRKTGQAPGYSYTAANKNKGIIWGEDTLMEYLENPKKY
IPGTKMIFVGIKKKEERADLIAYLKKATNE

FIGURE 1335

GGCACGAGGCCTAAGAGTTCCTCTGCTGTACGACTGCACTCCCGCACCCTCCCCTAAATCCCCCCTCTTCGGCCT
GTTTACCTTTTAACTTGGCTTCGTTGCACGTTTGTGTGTGTGTGTTTGCTCTTCGCAGCCTCTTGAGCGTCTTTT
GTACTTAATTCTTACACTGTGGACGCTCTCTCGCGCCCGCCATCCCCCGACCCCTCTGATCTCCGATCCTTGACG
ATGTCTAGCCTGCATTGATTGGCCCTTTTCCCTGGGTATGGCAGATCTATTGCTTGATGATCCTCTCCCCCCAAG
AATTCTAACACAGGAGCTGTCCTGAGGCTCTGGATGACTTTATTCTTCAAATGGCTTTACCCTCCCAGTAGCTCC
AGGGACCCTCCATTTTCCATATCCAGGAAAATGTGATGCGCCACAGGTATCAGCGTCTGGATCGCCACTTCACGT
TTTAGCCACAAGTGACTCAGTGGAAGATCCAGAGTCAACAGAGGCTCGTCAGGAAG**ATG**TCTACAGAAAAGGTAG
ACCAAAAGGAGGAAGCTGGGGAAAAAGAGGTGTGCGGAGACCAGATCAAAGGACCGGACAAAGAGGAGGAACCAC
CAGCTGCTGCATCCCATGGCCAGGGGTGGCGTCCAGGTGGCAGAGCAGCTAGGAACGCAAGGCCTGAACCTGGGG
CCAGACACCCTGCTCTCCCGGCCATGGTCAACGACCCTCCAGTACCTGCCTTACTGTGGGCCCAGGAGGTGGGCC
AAGTCTTGGCAGGCCGTGCCCGCAGGCTGCTGCTGCAGTTTGGGGTGCTCTTCTGCACCATCCTCCTTTTGCTCT
GGGTGTCTGTCTTCCTCTATGGCTCCTTCTACTATTCCTATATGCCGACAGTCAGCCACCTCAGCCCTGTGCATT
TCTACTACAGGACCGACTGTGATTCCTCCACCACCTCACTCTGCTCCTTCCCTGTTGCCAATGTCTCGCTGACTA
AGGGTGGACGTGATCGGGTGCTGATGTATGGACAGCCGTATCGTGTTACCTTAGAGCTTGAGCTGCCAGAGTCCC
CTGTGAATCAAGATTTGGGCATGTTCTTGGTCACCATTTCCTGCTACACCAGAGGTGGCCGAATCATCTCCACTT
CTTCGCGTTCGGTGATGCTGCATTACCGCTCAGACCTGCTCCAGATGCTGGACACACTGGTCTTCTCTAGCCTCC
TGCTATTTGGCTTTGCAGAGCAGAAGCAGCTGCTGGAGGTGGAACTCTACGCAGACTATAGAGAGAACTCGTACG
TGCCGACCACTGGAGCGATCATTGAGATCCACAGCAAGCGCATCCAGCTGTATGGAGCCTACCTCCGCATCCACG
CGCACTTCACTGGGCTCAGATACCTGCTATACAACTTCCCGATGACCTGCGCCTTCATAGGTGTTGCCAGCAACT
TCACCTTCCTCAGCGTCATCGTGCTCTTCAGCTACATGCAGTGGGTGTGGGGGGGCATCTGGCCCCGACACCGCT
TCTCTTTGCAGGTTAACATCCGAAAAAGAGACAATTCCCGGAAGGAAGTCCAACGAAGGATCTCTGCTCATCAGC
CAGGTGCAGGGCCTGAAGGCCAGGAGGAGTCAACTCCGCAATCAGATGTTACAGAGGATGGTGAGAGCCCTGAAG
ATCCCTCAGGGACAGAGGGTCAGCTGTCCGAGGAGGAGAAACCAGATCAGCAGCCCCTGAGCGGAGAAGAGGAGC
TAGAGCCTGAGGCCAGTGATGGTTCAGGCTCCTGGGAAGATGCAGCTTTGCTGACGGAGGCCAACCTGCCTGCTC
CTGCTCCTGCTTCTGCTTCTGCCCCTGTCCTAGAGACTCTGGGCAGCTCTGAACCTGCTGGGGGTGCTCTCCGAC
AGCGCCCCACCTGCTCTAGTTCC**TGA**AGAAAAGGGGCAGACTCCTCACATTCCAGCACTTTCCCACCTGACTCCT
CTCCCCTCGTTTTTCCTTCAATAAACTATTTTGTGTCAGCTTCAAAAAAAAAAAAAAAAAAA

FIGURE 1336

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MSTEKVDQKEEAGEKEVCGDQIKGPDKEEEPPAAASHGQGWRPGGRAARNARPEPGARHPALPAMVNDPPVPALL
WAQEVGQVLAGRARRLLLQFGVLFCTILLLLWVSVFLYGSFYYSYMPTVSHLSPVHFYYRTDCDSSTTSLCSFPV
ANVSLTKGGRDRVLMYGQPYRVTLELELPESPVNQDLGMFLVTISCYTRGGRIISTSSRSVMLHYRSDLLQMLDT
LVFSSLLLFGFAEQKQLLEVELYADYRENSYVPTTGAIIEIHSKRIQLYGAYLRIHAHFTGLRYLLYNFPMTCAF
IGVASNFTFLSVIVLFSYMQWVWGGIWPRHRFSLQVNIRKRDNSRKEVQRRISAHQPGAGPEGQEESTPQSDVTE
DGESPEDPSGTEGQLSEEEKPDQQPLSGEEELEPEASDGSGSWEDAALLTEANLPAPAPASASAPVLETLGSSEP
AGGALRQRPTCSSS
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FIGURE 1337A

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AAATCCCCCAAGTTCTCATGATCCTTGCTTCCCTTTCCAGTCACCCTTGGTGCCCTGTACTTCACTGTGGTCCTG
AACTGAAGAGCTGTGTTTTTCAGGAAGACTTGGCCAGGCCGTGTTCCGTGTCTCTGGATTCAAGTCCCAGGAGTC
CTGACCAGAGAGCAGGCATCAGTGTTTTTCTGACCGAAGTGCTCATTTCCTGACAATGGAAATGGAACAAGAAAA
AATGACCATGAATAAGGAATTGAGTCCAGACGCGGCTGCTTACTGCTGCTCGGCCTGCCACGGCGATGAGACCTG
GAGTTACAACCACCCCATCCGGGGCCGGGCCAAGTCTCGCAGCCTGTCTGCCTCGCCCGCCCTGGGGAGCACCAA
GGAGTTCAGGAGGACACGCTCTCTTCATGGGCCATGCCCGGTGACCACTTTTGGACCAAAGGCCTGTGTGCTGCA
GAACCCCCAGACCATCATAGCCACTCCTTTGTCACTCGCATCTCAGCTGCTGCCTTCACCAGCCGTCAGTCACTC
GGGCCAGGGCGGGGTCACCGGACAGGTGCATGTTCTGCCTCAGCCCTCAGACCAGGGCGTACTCAGTGGTCCCCG
AGCTGCCCGAGGCCAGACAGCCCCGCAGGAGGAAGCGGTGACCCAGGAAGAGGTCGAGGCGCTGGTTTGTGGTCA
CACACAGCGGTGGGTGCCTGGGCCGGTGTACGACGCCGCTGCTGGTGGCTCTGGCTGGGCTCAGCTGAGCCTCAG
GGCTGGAATGGGTGTAGGCCAGGCCACTGGGCACATTCAGGACCCCGCGAGCCAGCGGCTGACGTGGAACAAGTC
CCCAAAGAGCGTCCTTGTCATCAAGAAGATGAGAGATGCCAGCCTACTGCAGCCGTTCAAGGAGCTCTGCACGCA
CCTCATGGAGGCACGCGGGGCAGGGGGGAAGGGGGCCTGGGGTGCACATGGAGTTGGGGGGGCCTCCATCCACAT
CACCGCCCCGAGGGTGGGGTCTGCAGGTGGAATGAGCAGGTTGGCACTTTGCTTCCAGGAGAACATGATCGTGTA
TGTGGAAAAGAAAGTGCTAGAAGACCCTGCCATCGCCAGCGATGAAAGCTTTGGGGCAGTGAAGAAGAAATTCTG
TACCTTTCGAGAAGATTATGATGACATTTCCAATCAGATAGACTTCATCATCTGCCTGGGGGGAGACGGGACGCT
GCTGTACGCTTCCTCGCTTTTCCAGGGCAGCGTCCCTCCGGTCATGGCCTTCCACCTGGGCTCCCTGGGCTTCCT
GACCCCATTCAGCTTTGAGAACTTTCAGTCCCAAGTTACTCAGGTGATAGAGGGGAACGCAGCTGTTGTTCTCCG
GAGTCGGCTGAAGGTCAGGGTGGTGAAGGAGCTCCGGGGGAAGAAGACGGCCGTGCACAATGGGCTGGGTGAGAA
CGGCTCGCAGGCTGCAGGCCTGGACATGGATGTCGGGAAGCAGGCCATGCAGTACCAGGTCCTGAATGAGGTGGT
GATTGACAGAGGCCCCTCCTCCTACCTGTCCAATGTGGATGTCTACCTGGACGGACACCTCATCACCACGGTGCA
GGGCGACGGAGTGATCGTGTCCACCCCGACGGGCAGCACGGCGTATGCGGCCGCGGCCGGGGCCTCCATGATCCA
CCCCAACGTGCCGGCCATCATGATCACGCCCATCTGCCCCCACTCGCTGTCCTTCCGGCCCATCGTGGTCCCCGC
AGTCGAGCTGAAGATCATGCTGTCACCTGAAGCAAGGAACACAGCATGGGTGTCCTTTGATGGACGGAAGAGACA
AGAGATCCGCCATGGAGACAGCATCAGCATCACTACCTCATGCTACCCGCTCCCCTCCATCTGTGTGCGGGACCC
CGTGAGCGACTGGTTTGAGAGCCTCGCCCAGTGCCTGCATTGGAACGTCCGGAAGAAGCAAGCCCACTTCGAGGA
GGAGGAGGAGGAGGAGGAGGAGGGCTAGGTCAAGCCCCTATCCAGGCCCGAATCCTTCCGCTGCCCTCCAAGCGC
CCTCTGGGGACAGACCAATCTGCGTGTGTCTGTGACCGCCTGTCATCAGTGGCACGGCCACTTCCTTTCTGTAGC
TGGGTTAGAGCCTGGGTCTGCCTTTTGTCCAGATCAGCTGTTTTTTTAAAATCTCTGACTTTTTTTGCATTTCTA
AAGAAGCGTGAGAAATGGGCTGGGAGTGCTTCTGTCCTGCTGACACCCCGCGGTGGGTCCCTGGAGCGCGGCCTC
CAGCTGCCGCAATTTCCATGCCAGGATATTTTTCCGCAAATCAGTCGGTTGAAATTCAGAGGAGTCAGAATGACT
CGACCTGTCCTTCAATGTTGATAATAAATGTCTCAGCCAAAAACCTTCCTTGAGCTGCCATGCTTTTCCCCTTGA
CCTGCACCTCTTCCCCTAAAATTTCTGCAGGGAAGCCCCTGGCGGAGGCGCCATTGAAAGCATGGTCTTGCCAGT
GGCTGGCAAGGCGGTTTTGTTCTGCTCAGTTTCTGGAGAGGGTTGGATGCGTCCCCTGCCATCCAGCCCTCCCCG
CTTGAGGCCAGCACTGAGTCTGGGACACTCAGCGGGAAGGGGGCTGGCATCGCCACGGACCCACACATTCCTCAC
GTAGCTTCTGCTCCCAGGAAGGTAGTTTAAATCCTGTATATACTTTTTAGAGACTCTTTTAAACTTTCTGAAGTG
CTGATGTACATACTTTCTCGTACACACTTTTGTGAAGATTTCAAGGGGAAGGGAGTTGTCTGCCATTCAATGTTT
ACATTTATGTTCTGCAAGACGCTGTCCTCAGGGACCATTAGGGGACCATTCTGTTCAGTGCGATCCTGATGGTCC
GGGAGATGAGGGTTTCCGGGGCTAGTGATCGTGATCCCTTTTATTTGCAACTGTAATGAGAATTTTTCACACTAA
CACAGCGAGGGACTCAACACGCTGATTCTCCTCCTGCCTCTCCCGTGAGTCTCCAGCCTGCCCAGCACCAGCAGC
TGTGGAGCACGTGGATGCTGCCTACCCCGGCGCCCGCGTCTTCCACGGGCACAGGTGTGTGGAGGCCGTGGTCGG
ACCCTGGTGTCCTGGTTACTGCTGCCCGGGTGTCTTTTTTTGAGTAACTGCTCTCTGAGTTTTGCACACGAAGT
TGCCCTCATCTGCTGGAGATCGATAAGGAAGGCACAAGACGTTCTCCTCTGCCCGTGAGGAGCTTCCCGCAGCCG
CCTGGCCCAGCCTGGGCACGTTCTCCGAGGCATGTGTCTCCCTGCTCACCCTCGTCTGGGCACCTCAGCATCTGT
GGACTTGAGCGTCCAAAAACCCTGAGTGTGATTCTGGGCAGCCGGCCTGGCTTGAAGTCCGCCATGACCCTGGGC
ACAGGGGAAGCCCAGCCGTGGGCTTAGGAGAGAGGGACCAGCGCCCAGCGTTAGGGCTGGAAGACGGCAGTGTTC
AGAATTCCAGCCGCTCATCTGAACACAGAAGGTGTGAACTGACCTCTAAAGCAGCGTGAGATGGGAATGATCTAG
AAAACTTTGGATTTTTGAAGTAAATTTTAATGTTTCATATTAATTTCTTGAAAATGTATTAAATGTCATTGAAAG
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FIGURE 1337B

CCTTATTACGCTTTTCAGATCCTTTCAATAAACAAGACTTGTAGAAAATAAAAAAAAAAAAAAAAAAAAAAAAAA
A

FIGURE 1338

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MEMEQEKMTMNKELSPDAAAYCCSACHGDETWSYNHPIRGRAKSRSLSASPALGSTKEFRRTRSLHGPCPVTTFG
PKACVLQNPQTIIATPLSLASQLLPSPAVSHSGQGGVTGQVHVLPQPSDQGVLSGPRAARGQTAPQEEAVTQEEV
EALVCGHTQRWVPGPVYDAAAGGSGWAQLSLRAGMGVGQATGHIQDPASQRLTWNKSPKSVLVIKKMRDASLLQP
FKELCTHLMEARGAGGKGAWGAHGVGGASIHITAPRVGSAGGMSRLALCFQENMIVYVEKKVLEDPAIASDESFG
AVKKKFCTFREDYDDISNQIDFIICLGGDGTLLYASSLFQGSVPPVMAFHLGSLGFLTPFSFENFQSQVTQVIEG
NAAVVLRSRLKVRVVKELRGKKTAVHNGLGENGSQAAGLDMDVGKQAMQYQVLNEVVIDRGPSSYLSNVDVYLDG
HLITTVQGDGVIVSTPTGSTAYAAAAGASMIHPNVPAIMITPICPHSLSFRPIVVPAVELKIMLSPEARNTAWVS
FDGRKRQEIRHGDSISITTSCYPLPSICVRDPVSDWFESLAQCLHWNVRKKQAHFEEEEEEEEG
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FIGURE 1339

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GGCACGAGGGAGCGCTTGGGAGTTAGGTTGTTTGCCGGCGTAGCGGCCAGCGCCTGAGCCCGCCGTTGATCTTCG
CTGTGGCATGGCGGACGAGGGGAAGTCGTACAGCGAACACGATGATGAACGCGTTAATTTCCCTCAAAGAAAGAA
GAAAGGCCGGGGTCCCTTCCGGTGGAAATATGGTGAAGGAAACCGTAGGTCTGGAAGAGGCGGTTCTGGTATTCG
GTCTTCCCGCCTTGAGGAAGATGATGGAGATGTGGCAATGAGTGATGCCCAGGATGGTCCCCGAGTACGATACAA
CCCCTATACCACCCGACCTAACCGTCGGGGTGATACTTGGCATGATCGAGATCGCATTCATGTTACTGTGCGGAG
AGACAGAGCTCCTCCAGAGAGAGGAGGGGCTGGCACCAGCCAGGATGGGACCTCAAAGAACTGGTTCAAGATTAC
AATTCCTTATGGCAGAAAGTATGACAAGGCATGGCTCCTGAGCATGATTCAGAGCAAGTGCAGTGTGCCCTTCAC
CCCTATTGAGTTTCACTATGAGAATACACGGGCCCAGTTCTTCGTTGAAGACGCCAGTACTGCCTCTGCATTGAA
GGCTGTCAACTATAAGATTTTGGATCGGGAGAACCGAAGGATATCTATCATCATCAACTCTTCTGCTCCACCCCA
CACTATACTGAATGAACTGAAGCCAGAACAAGTAGAACAGCTAAAGCTGATCATGAGCAAACGATACGATGGCTC
CCAACAAGCCCTTGACCTCAAAGGCCTCCGTTCAGACCCAGATTTGGTGGCCCAGAACATTGACGTTGTCCTGAA
TCGCAGAAGCTGTATGGCAGCTACCCTGAGGATCATTGAAGAGAACATCCCTGAGCTATTGTCCTTGAACTTGAG
CAACAACAGGCTGTACAGGCTGGATGACATGTCTAGCATTGTTCAGAAGGCACCCAACCTGAAGATCCTAAACCT
TTCTGGAAATGAATTGAAGTCTGAGCGGGAATTGGACAAGATAAAGGGGCTGAAGCTAGAAGAGCTCTGGCTCGA
TGGAAACTCCCTGTGTGACACCTTCCGAGACCAGTCCACCTACATCAGCGCCATTCGCGAACGATTTCCCAAGTT
ACTACGCCTGGATGGCCATGAGCTACCCCCACCAATTGCCTTTGATGTTGAAGCCCCCACGACGTTACCGCCCTG
CAAGGGAAGCTATTTTGGAACAGAAAACTTGAAGAGTCTGGTCTTGCACTTCCTGCAACAGTACTATGCAATTTA
CGACTCTGGAGACCGACAAGGGCTCCTGGATGCCTACCATGATGGGGCCTGCTGTTCCCTGAGCATTCCTTTCAT
TCCTCAGAACCCTGCCCGAAGCAGCTTAGCCGAGTATTTCAAGGATAGCAGAAATGTGAAGAAGCTTAAAGACCC
TACCTTGCGGTTCCGGCTGCTGAAGCACACGCGTCTCAACGTTGTTGCCTTCCTCAATGAGTTGCCCAAAACCCA
GCACGACGTCAATTCCTTCGTGGTAGACATAAGCGCCCAGACAAGCACATTGCTGTGTTTTTCTGTCAATGGAGT
CTTCAAGGAAGTGGACGGAAAGTCCCGGGATTCTTTGCGAGCCTTCACCCGGACATTCATTGCTGTTCCTGCTAG
CAATTCAGGGCTATGTATTGTAAATGATGAGCTATTTGTGCGGAATGCCAGTTCTGAAGAGATCCAAAGAGCCTT
CGCTATGCCTGCACCCACGCCTTCCTCCAGCCCGGTGCCCACCCTCTCTCCAGAGCAGCAGGAAATGTTGCAAGC
ATTCTCTACCCAGTCTGGCATGAACCTCGAGTGGTCCCAGAAGTGCCTTCAGGACAACAACTGGGACTACACCAG
ATCTGCCCAGGCCTTCACTCATCTCAAGGCCAAGGGCGAGATCCCAGAAGTGGCATTCATGAAGTGATCGTAGTC
ATGCCTCAGAAGCAGTCCCCCCTGTAAATAGTCCTTGGATATTACCGTCTGGTTGTCGTCTGTCATCTCCTCCTG
TCTGGCCCGAGGCCGCCCCGTGACTGTGACCGAGGGAGGGAGGGCTGCCTGATCCCTCTCCTCGCCTGCCTTCTG
GAAGACTTCAGAAGATTGAGCCTCACTGGTGCCAGGAAGCCAAAGCTTACTTTGTAGAACTGACACTAAACTACC
CGAAGGACTTAGGTGCTTTGTGTACTTAACCCCAGGACCTCCTTACTTTTTAATATAAAGAGTGATGTTGTAAAA
AAAAAAAAAAAAA
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FIGURE 1340

MADEGKSYSEHDDERVNFPQRKKKGRGPFRWKYGEGNRRSGRGGSGIRSSRLEEDDGDVAMSDAQDGPRVRYNPY
TTRPNRRGDTWHDRDRIHVTVRRDRAPPERGGAGTSQDGTSKNWFKITIPYGRKYDKAWLLSMIQSKCSVPFTPI
EFHYENTRAQFFVEDASTASALKAVNYKILDRENRRISIIINSSAPPHTILNELKPEQVEQLKLIMSKRYDGSQQ
ALDLKGLRSDPDLVAQNIDVVLNRRSCMAATLRIIEENIPELLSLNLSNNRLYRLDDMSSIVQKAPNLKILNLSG
NELKSERELDKIKGLKLEELWLDGNSLCDTFRDQSTYISAIRERFPKLLRLDGHELPPPIAFDVEAPTTLPPCKG
SYFGTENLKSLVLHFLQQYYAIYDSGDRQGLLDAYHDGACCSLSIPFIPQNPARSSLAEYFKDSRNVKKLKDPTL
RFRLLKHTRLNVVAFLNELPKTQHDVNSFVVDISAQTSTLLCFSVNGVFKEVDGKSRDSLRAFTRTFIAVPASNS
GLCIVNDELFVRNASSEEIQRAFAMPAPTPSSSPVPTLSPEQQEMLQAFSTQSGMNLEWSQKCLQDNNWDYTRSA
QAFTHLKAKGEIPEVAFMK

FIGURE 1341

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CGGGAAGCGCGGCGGGGCCTCCAGACCGGGGCGGGCTTAAGGGTGACATCTGCGCTTTAAAGGGTCCGGGTCAGC
TGACTCCCGACTCTGTGGAGTCTAGCTGCCAGGGTCGCGGCAGTGCGGGGAGAGATGACTGGGGAGCGACCCAGC
ACGGCGCTCCCGGACAGACGCTGGGGGCCGCGGATTCTGGGCTTCTGGGGAGGCTGTAGGGTTTGGGTGTTTGCC
GCGATCTTCCTGCTGCTGTCTCTGGCAGCCTCCTGGTCCAAGGCTGAGAACGACTTCGGTCTGGTGCAGCCGCTG
GTGACCATGGAGCAACTGCTGTGGGTGAGCGGGAGACAGATCGGCTCAGTGGACACCTTCCGCATCCCGCTCATC
ACAGCCACTCCGCGGGGCACTCTTCTCGCCTTTGCTGAGGCGAGGAAAATGTCCTCATCCGATGAGGGGGCCAAG
TTCATCGCCCTGCGGAGGTCCATGGACCAGGGCAGCACATGGTCTCCTACAGCGTTCATTGTCAATGATGGGGAT
GTCCCCGATGGGCTGAACCTTGGGGCAGTAGTGAGCGATGTTGAGACAGGAGTAGTATTTCTTTTCTACTCCCTT
TGTGCTCACAAGGCCGGCTGCCAGGTGGCCTCTACCATGTTGGTATGGAGCAAGGATGATGGTGTTTCCTGGAGC
ACACCCCGGAATCTCTCCCTGGATATTGGCACTGAAGTGTTTGCCCCTGGACCGGGCTCTGGTATTCAGAAACAG
CGGGAGCCACGGAAGGGCCGCCTCATCGTGTGTGGCCATGGGACGCTGGAGCGGGACGGAGTCTTCTGTCTCCTC
AGCGATGATCATGGTGCCTCCTGGCGCTACGGAAGTGGGGTCAGCGGCATCCCCTACGGTCAGCCCAAGCAGGAA
AATGATTTCAATCCTGATGAATGCCAGCCCTATGAGCTCCCAGATGGCTCAGTCGTCATCAATGCCCGAAACCAG
AACAACTACCACTGCCACTGCCGAATTGTCCTCCGCAGCTATGATGCCTGTGATACACTAAGGCCCCGTGATGTG
ACCTTCGACCCTGAGCTCGTGGACCCTGTGGTAGCTGCAGGAGCTGTAGTCACCAGCTCCGGCATTGTCTTCTTC
TCCAACCCAGCACATCCAGAGTTCCGAGTGAACCTGACCCTGCGATGGAGCTTCAGCAATGGTACCTCATGGCGG
AAAGAGACAGTCCAGCTATGGCCAGGCCCCAGTGGCTATTCATCCCTGGCAACCCTGGAGGGCAGCATGGATGGA
GAGGAGCAGGCCCCCAGCTCTACGTCCTGTATGAGAAAGGCCGGAACCACTACACAGAGCATCTCCGTGGCC
AAAATCAGTGTCTATGGGACACTCTGAGCTGTGCCACTGCCACAGGGGTATTCTGCCTTCAGGACTCTGCCTTCA
GGAACACGGGTCTGTAGAGGGTCTGCTGGAGACGCCTGAAAGACAGTTCCATCTTCCTTTAGACTCCAGCCTTGG
CAAAATCACCTTCCCTTTACCAGGGAAATCACTTCCTTTAGGACTGAAAGCTAGGCGTCCTCTCCCACAAAAAAG
TCCTGCCCTCATCTGAGAATACTGTCTTTCCATATGGCTAAGTGTGGCCCCACCACCCTCTCTGCCTCCCGGGAC
ATTGATTGGTCCTGTCTTGGGCAGGTCTAGTGAGCTGTAGAATTGAATCAATGTGAACTCAGGGAACTGGGGAAG
GCTGAGCCTCCTCTTTGGTGTTGCGGTAAGATAACCGACAGGGCTGGTGAAAGTCCCCAGATGGCAGGATATTTG
GTTTCAGAGTAAGGACTAGGTGCACCACCATGACTGACTATCAATCAAAATGTTTGTAACTTAAAATTTTTAATG
AAGGATAATGAATATTTTA
```

FIGURE 1342

MTGERPSTALPDRRWGPRILGFWGGCRVWVFAAIFLLLSLAASWSKAENDFGLVQPLVTMEQLLWVSGRQIGSVD
TFRIPLITATPRGTLLAFAEARKMSSSDEGAKFIALRRSMDQGSTWSPTAFIVNDGDVPDGLNLGAVVSDVETGV
VFLFYSLCAHKAGCQVASTMLVWSKDDGVSWSTPRNLSLDIGTEVFAPGPGSGIQKQREPRKGRLIVCGHGTLER
DGVFCLLSDDHGASWRYGSGVSGIPYGQPKQENDFNPDECQPYELPDGSVVINARNQNNYHCHCRIVLRSYDACD
TLRPRDVTFDPELVDPVVAAGAVVTSSGIVFFSNPAHPEFRVNLTLRWSFSNGTSWRKETVQLWPGPSGYSSLAT
LEGSMDGEEQAPQLYVLYEKGRNHYTESISVAKISVYGTL

FIGURE 1343

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GAACACCAGCGAGCTGGTCTCCAGCGAGGTCTACCTGCTCAGTGCCTTGGCTGCTCTGCAGAAGGTTGTGGAGAC
TCTCCCGCACTTCATCAGCCCCTATCTGGAAGGCATTCTCTCCCAGGTGATTCATCTGGAGAAAATCACTAGTGA
AATGGGTTCTGCGTCACAGGCTAATATCCGTCTCACATCTCTTAAAAAGACACTGGCTACCACACTTGCACCCCG
AGTCCTGTTGCCCGCCATCAAAAAAACTTACAAGCAGATTGAGAAGAACTGGAAGAATCACATGGGTCCGTTTAT
GAGCATCTTGCAAGAGCATATTGGGGCGATGAAGAAGGAAGAGCTCACCTCCCATCAGTCTCAGCTAACCGCCTT
TTTCCTGGAGGCCCTGGACTTCCGAGCCCAGCACTCTGAGAACGATCTGGAGGAAGTTGGAAAAACGGAAAATTG
TATCATTGACTGTCTAGTAGCCATGGTTGTCAAACTTTCCGAGGTCACATTCAGGCCCCTGTTCTTCAAGCTGTT
TGATTGGGCTAAAACAGAAGATGCCCCAAAGGACAGGTTGTTGACATTTTACAACTTGGCAGATTGCATTGCTGA
AAAGCTGAAAGGGCTTTTTACTCTGTTTGCCGGCCACTTAGTGAAGCCTTTTGCTGACACCTTGGACCAGGTGAA
CATCTCCAAAACAGATGAAGCATTTTTTGACTCTGAAAATGACCCTGAAAAGTGCTGCTTGCTGTTGCAGTTTAT
TTTGAACTGTTTATACAAAATCTTCCTTTTTGATACCCAGCATTTTATAAGTAAAGAGAGAGCAGGAGCCTTGAT
GATGCCTCTGGTGGATCAGCTGGAAAACAGGCTTGGGGGAGAAGAGAAATTCCAGGAACGGGTGACAAAGCACCT
GATACCATGCATCGCACAGTTTTCAGTGGCCATGGCGGATGACTCTCTTTGGAAACCACTGACTACCAGATTCT
GCTAAAGACGAGAGACTCCTCGCCTAAGGTTCGATTTGCTGCTTTGATTACTGTGTTAGCACTGGCTGAAAAACT
AAAGGAGAATTATATTGTCTTGCTACCAGAATCCATTCCTTTCTTAGCAGAGTTGATGGAAGATGAATGTGAAGA
AGTAGAACATCAGTGCCAAAAGACTATTCAGCAACTGGAAACTGTCCTGGGAGAGCCACTCCAGAGCTATTTCTA
AGACTTTCTGTGGTGTTTCATACTCTACTCAGAGTTCACACTCATATTTCATATTTTTATTTTTGGGTGTTGGGT
GCCATGTTACTTTTGGTGCCTTAATACACCTACTTGGATTACTTACAAATGTTTATCACTTCGTTACAAAATCC
CCACCTGGCTTGTGCTGCCACATAAGCCTCTCCTGCCTATCGTATAGAGCTGCAGAAAGAGTAAATGATACACGG
TATTTTTAAAAAAAAAAAAAAAA
```

FIGURE 1344

MGSASQANIRLTSLKKTLATTLAPRVLLPAIKKTYKQIEKNWKNHMGPFMSILQEHIGAMKKEELTSHQSQLTAF
FLEALDFRAQHSENDLEEVGKTENCIIDCLVAMVVKLSEVTFRPLFFKLFDWAKTEDAPKDRLLTFYNLADCIAE
KLKGLFTLFAGHLVKPFADTLDQVNISKTDEAFFDSENDPEKCCLLLQFILNCLYKIFLFDTQHFISKERAGALM
MPLVDQLENRLGGEEKFQERVTKHLIPCIAQFSVAMADDSLWKPLNYQILLKTRDSSPKVRFAALITVLALAEKL
KENYIVLLPESIPFLAELMEDECEEVEHQCQKTIQQLETVLGEPLQSYF

FIGURE 1345

CCGAGCCTGGAGTTTGCATGAAACTTTCACCTGCGCTCCGGGGAGACTTTCGGCTCCGGCTCCCACCGCGCGCCT
CGCCGCCCTCGCAACCGCGGGCTCCGTCCAACCCGGCCCGAC**ATG**GACGTGCTCCCCATGTGCAGCATCTTCCAG
GAGCTCCAGATCGTGCACGAGACCGGCTACTTCTCGGCGCTGCCGTCTCTGGAGGAGTACTGGCAACAGACCTGC
CTAGAGCTGGAACGTTACCTCCAGAGCGAGCCCTGCTATGTTTCAGCCTCAGAAATCAAATTTGACAGCCAGGAA
GATCTGTGGACCAAAATCATTCTGGCTCGGGAGAAAAAGGAGGAATCCGAACTGAAGATATCTTCCAGTCCTCCA
GAGGACACTCTCATCAGCCCGAGCTTTTGTTACAACTTAGAGACCAACAGCCTGAACTCAGATGTCAGCAGCGAA
TCCTCTGACAGCTCCGAGGAACTTTCTCCCACGGCCAAGTTTACCTCCGACCCCATTGGCGAAGTTTTGGTCAGC
TCGGGAAAATTGAGCTCCTCTGTCACCTCCACGCCTCCATCTTCTCCGGAACTGAGCAGGGAACCTTCTCAACTG
TGGGGTTGCGTGCCCGGGGAGCTGCCCTCGCCAGGGAAGGTGCGCAGCGGGACTTCGGGGAAGCCAGGTGACAAG
GGAAATGGCGATGCCTCCCCCGACGGCAGGAGGAGGGTGCACCGGTGCCACTTTAACGGCTGCAGGAAAGTTTAC
ACCAAAAGCTCCCACTTGAAAGCACACCAGCGGACGCACACAGGAGAAAAGCCTTACAGATGCTCATGGGAAGGG
TGTGAGTGGCGTTTTGCAAGAAGTGATGAGTTAACCAGGCACTTCCGAAAGCACACCGGGGCCAAGCCTTTTAAA
TGCTCCCACTGTGACAGGTGTTTTTCCAGGTCTGACCACCTGGGCCTGCACATGAAGAGGCACCTC**TGA**GGGAGC
AAAGAGGTGGATCCTGTAGGCTAAAAGGCTTCCAGGCTGAGAGCCGGCCGTGGAAGGAGGGATGCGTGTTCCAGC
CAAAGCATGCCGTTCTGCACCTACCCAGTTGCCTCCAGGGCCTCTCCTTGGAAGGTCTTTTGAAGGCTAAAAAGG
TCCTGTAAGAAGTGGCATAGCACCCGTGGTGCATGGTATGTGGGTGACCCTGGACTCGCCACTGGTACCCGCCCT
TCCGAGCGGCGCCTAAGCCTTTGCCGTGAGCATGCACACTGAGAATGCTAATGGTTGGGTTGATTGTATGTTGAG
GATCTATTACTGACCGTATGATGAGGCCAACTTTTTTTCCTTGTGGTTAGCAAGACTGCAAGAGATGGAAAAAAA
GTAGTTTGAATGTTTTGTGTGAAAGGAGTATACCATGAGATGAGATGACCACCAATCATTTCCTTGGGGGGAGGG
GGTGTCTGCACCTTAGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

FIGURE 1346

MDVLPMCSIFQELQIVHETGYFSALPSLEEYWQQTCLELERYLQSEPCYVSASEIKFDSQEDLWTKIILAREKKE
ESELKISSSPPEDTLISPSFCYNLETNSLNSDVSSESSDSSEELSPTAKFTSDPIGEVLVSSGKLSSSVTSTPPS
SPELSREPSQLWGCVPGELPSPGKVRSGTSGKPGDKGNGDASPDGRRRVHRCHFNGCRKVYTKSSHLKAHQRTHT
GEKPYRCSWEGCEWRFARSDELTRHFRKHTGAKPFKCSHCDRCFSRSDHLGLHMKRHL

FIGURE 1347A

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TCCACTCCTGGAGCCCGCGGACCCCGAGCACGCGCCTGACAGCCCCTGCTGGCCCGGCGCGCGGCGTCGCCAGGC
CAGCTATGGCCCCCGACCCGGTGGCCGCCGAGACCGCGGCTCAGGGACCTACCCCGCGCTACTTCACCTGGGGACG
AGGTGGCCCAGCGCTCAGGGTGCGAGGAGCGGTGGCTAGTGATCGACCGTAAGGTGTACAACATCAGCGAGTTCA
CCCGCCGGCATCCAGGGGGCTCCCGGGTCATCAGCCACTACGCCGGGCAGGATGCCACGGATCCCTTTGTGGCCT
TCCACATCAACAAGGGCCTTGTGAAGAAGTATATGAACTCTCTCCTGATTGGAGAACTGTCTCCAGAGCAGCCCA
GCTTTGAGCCCACCAAGAATAAAGAGCTGACAGATGAGTTCCGGGAGCTGCGGGCCACAGTGGAGCGGATGGGGC
TCATGAAGGCCAACCATGTCTTCTTCCTGCTGTACCTGCTGCACATCTTGCTGCTGGATGGTGCAGCCTGGCTCA
CCCTTTGGGTCTTTGGGACGTCCTTTTTGCCCTTCCTCCTCTGTGCGGTGCTGCTCAGTGCAGTTCAGGCCCAGG
CTGGCTGGCTGCAGCATGACTTTGGGCACCTGTCGGTCTTCAGCACCTCAAAGTGGAACCATCTGCTACATCATT
TTGTGATTGGCCACCTGAAGGGGGCCCCCGCCAGTTGGTGGAACCACATGCACTTCCAGCACCATGCCAAGCCCA
ACTGCTTCCGCAAAGACCCAGACATCAACATGCATCCCTTCTTCTTTGCCTTGGGGAAGATCCTCTCTGTGGAGC
TTGGGAAACAGAAGAAAAATATATGCCGTACAACCACCAGCACAAATACTTCTTCCTAATTGGGCCCCCAGCCT
TGCTGCCTCTCTACTTCCAGTGGTATATTTTCTATTTTGTTATCCAGCGAAAGAAGTGGGTGGACTTGGCCTGGA
TGATTACCTTCTACGTCCGCTTCTTCCTCACTTATGTGCCACTATTGGGGCTGAAAGCCTTCCTGGGCCTTTTCT
TCATAGTCAGGTTCCTGGAAAGCAACTGGTTTGTGTGGGTGACACAGATGAACCATATTCCCATGCACATTGATC
ATGACCGGAACATGGACTGGGTTTCCACCCAGCTCCAGGCCACATGCAATGTCCACAAGTCTGCCTTCAATGACT
GGTTCAGTGGACACCTCAACTTCCAGATTGAGCACCATCTTTTTCCCACGATGCCTCGACACAATTACCACAAAG
TGGCTCCCCTGGTGCAGTCCTTGTGTGCCAAGCATGGCATAGAGTACCAGTCCAAGCCCCTGCTGTCAGCCTTCG
CCGACATCATCCACTCACTAAAGGAGTCAGGGCAGCTCTGGCTAGATGCCTATCTTCACCAATAACAACAGCCAC
CCTGCCCAGTCTGGAAGAAGAGGAGGAAGACTCTGGAGCCAAGGCAGAGGGGAGCTTGAGGGACAATGCCACTAT
AGTTTAATACTCAGAGGGGGTTGGGTTTGGGGACATAAAGCCTCTGACTCAAACTCCTCCCTTTTATCTTCTAGC
CACAGTTCTAAGACCCAAAGTGGGGGGGTGGACACAGAAGTCCCTAGGAGGGAAGGAGCTGTTGGGGCAGGGGTGT
AAATTATTTCCTTTTTCTAGTTTGGCACATGCAGGTAGTTGGTGAACAGAGAGAACCAGGAGGGTAACAGAAGAG
GAGGGACCTACTGAACCCAGAGTCAGGAAGAGATTTAACACTAAAATTCCACTCATGCCGGGCGTGGTGGCACGC
GCCTGTAATCCCAGCTACCCAGGAGGCTGAGGCAGGAGAATCGCTTGAACCGGGGAGGTGGAGGTTGCAGTGAGC
TGAGATCACGCCATTGTACTCCAGCCTGGGCGACAGAGCAAGACTCCATTTCAAAAAAAAAAAAAAAAATCCACTC
ATATAAAGGTGAGCTCAGCTCACTGGTCCATTTCTCAGTGGCTTCTCCATCCTCATTTGCAAACCTCAGAGGGA
TAAGGCAGTTGAACCTGATGAGCAAGAATTATAACAGCAAGGAAACATTAATGCTTAGAATTCTGAGATCCAGCA
CAACTCAGTCTGTGGGAGCTCAGCTCGCTGCCCAGGGATAGGTATGACCTATGTCTGCCTTAGGCTGCTGGGAGA
TGCCATTCTCCAGTTTCAGAAGCAGGCAGGGCAAAGGTCAAGACTGTGGTATTGGGGTCTTTTGGCTCTGAAGGA
TCCTGGAACCACTGATTTTGGTTTATTCCCTCCAGGGTCTAAAGAGAACAAGAGGTGCTAGCTCTTACCAAAACA
GATGGTAGAGAGAGTTGCTGGCTATTTAAAAAGCTCTTTCATCTTTTAATTCACCTCTTCTTTTCACCTCTTTAA
CCACTCCTCAGGAACAGAACACTTCTAGGACTGGGGGTCTTTTAGCTCCATAAGCAAGTGAGCAGATGGGACAAG
TTAGTCTTTTCTCCCTAGAAACAAAGGGGATGCCCAGTGGTTTCCCTTTGCTTCCCAACCTAAAATTTCAAGTTT
AATAAAATAGCAATTAGCAGAAGTGACCAAATTGGGAGATAATTATCAGTCATGAGGAAAGACACAGATTTCGGT
CATAAAGAATGTAAGGGCTATAAGTAGAAACTTTCTATAACCTAAATGATGTTATAGAATTATTTTTGAGCAGGA
GCAGAAAGATTAAATATGATCACTTCATACTTCTAAATCAGAAATAGGAAGATTAAAACCACAGAACAGTTTGTG
ATTTCTATTGCTGTAGCTAGGTATCTTACTCTGTCCACTCTTGTTCAAGTATCTAACTCTTCTGGAAACCAAATA
GGCTTTAGAAGAGATTATCCTATATTCCTATCAGTATAATACTAAATGTAACTTTTTAATCATCTGGTTTTTAA
AAGATAAACAGTTTAGCCCATCTCTCCAGAGAGCAAACATAGGAATATGACTCAGGAGCCTCCTAGGGCTTATCA
TCAGCCCTCACACCCGCTTCCCCCTCCAACCCACAGCCTTTGCTTCCAGGTGGCAGGATTACTACTTTGCCTCTT
CAGCAGCATCTACTCTAGGCATATTGATCATTTTAGCACTGGGAGAAGAGAACCTCAAACTAGGAGGAAAAGAC
AGAGCCTCCACTTAGTTTTGGGAGGGGATGGCAGACAGTCAAGGAGATGAGCGTCCTAAGGCATGTTGGGATAGG
GTCAGATGCACCACCCATGGAGAGGTTTGTCAACACAAAGACATGGAAGGTTAGAGGTTTGTCAACAAAAAGACA
TGGAAGGTTAGGTTTGTCAACACAAAGACATGGAAGATTAGAGGTTTGTCAACACAAAGACACAGGAAGAATGGG
CTGCAGAAGATTTAGATGTTTTCCATTTGGGCACATTTTACTTAGCTGGAGAACTAGGTTTAAAACAGCCTGGGT
AGGAAAATTAGAAGCAAGCTGGATGCAGTGGCTCATGCCTGTAATCCCAACACTTTTGGGAGGTCCAGGCAGGAG
GATCACTTGGGCCCAGGAGGTCAAGCCTGCAGCGAGCTGAGATCACACCACTGCACTCCAGCCTGGGGTGATAGA
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FIGURE 1347B

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ACAAGACCCTGTCTCAAAAAAAAAAAAAAACAACAAAAACTTAGAATTGAGGAGTTGTACCTCCATTGGCTTCCT
CACTCCAAAATAGGTGCTGATCCTTCCTATTCCTATTCTTTGCCACCTTTTGGGTGTGGTGTCACCAGCCTGTTT
AGCCAAGTAGCTTTGGGCATAGGCTGCCCAATCTGAGCAAACACCAGTGAGGCTCTATTGAGCCAAGACCAAGTC
CTCAAAGCACCTGAACCACTGTGGCCTTCTCAGCCTACAGCAGTGTGGTCTCTTACATGGCCACAAAGGGACACA
CAGTGACAAAAGGCTCGGAATGTTACAATGGTAAAATGAGTGATCTCAAATCCACTGACAGATATAAAATAGGCT
TAGAGAGGAAAAGCTGCCTCTGGTCAAGTAGATCATGGCAGCATGAATTCCAACTCACTTTTTTACAACTCCAAC
TTCTATGTTTATCTTTGTTACTTTCACTTTTTTACAACCTGGCCAGAGGCATTTTTTAAATCAGGCCCAATATCA
GTATTCTTTTTGTGTGTGCCAATTTTGTTATCACATCCCTATGAAGTTGAAAAATAAAGTTAATTTTGACCAAAA
AAAAAAAAAAAG
```

FIGURE 1348

MAPDPVAAETAAQGPTPRYFTWDEVAQRSGCEERWLVIDRKVYNISEFTRRHPGGSRVISHYAGQDATDPFVAFH
INKGLVKKYMNSLLIGELSPEQPSFEPTKNKELTDEFRELRATVERMGLMKANHVFFLLYLLHILLLDGAAWLTL
WVFGTSFLPFLLCAVLLSAVQAQAGWLQHDFGHLSVFSTSKWNHLLHHFVIGHLKGAPASWWNHMHFQHHAKPNC
FRKDPDINMHPFFFALGKILSVELGKQKKKYMPYNHQHKYFFLIGPPALLPLYFQWYIFYFVIQRKKWVDLAWMI
TFYVRFFLTYVPLLGLKAFLGLFFIVRFLESNWFVWVTQMNHIPMHIDHDRNMDWVSTQLQATCNVHKSAFNDWF
SGHLNFQIEHHLFPTMPRHNYHKVAPLVQSLCAKHGIEYQSKPLLSAFADIIHSLKESGQLWLDAYLHQ

FIGURE 1349

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GGCACGAGGCTGCTGTTTGTCTACTTCCTCCTGCTTCCCCGCCGCCGCCGCCGCCATCATGAGGGAAATCGTGCA
CTTGCAGGCCGGGCAGTGCGGCAACCAAATCGGCGCCAAGTTTTGGGAGGTGATCAGCGATGAGCACGGCATCGA
CCCCACGGGCACCTACCACGGGGACAGCGACCTGCAGCTGGAACGCATCAACGTGTACTACAATGAGGCCACCGG
CGGCAAGTACGTGCCCCGCGCCGTGCTCGTGGATCTGGAGCCCGGCACCATGGACTCCGTGCGCTCGGGGCCCTT
CGGGCAGATCTTCCGGCCGGACAACTTCGTTTTCGGTCAGAGTGGTGCTGGGAACAACTGGGCCAAGGGGCACTA
CACAGAAGGCGCGGAGCTGGTGGACTCGGTGCTGGATGTTGTGAGAAAGGAGGCTGAGAGCTGTGACTGCCTGCA
GGGTTTCCAGCTGACCCACTCCCTGGGTGGGGGGACTGGGTCTGGGATGGGTACCCTCCTCATCAGCAAGATCCG
GGAGGAGTACCCAGACAGGATCATGAACACGTTTAGTGTGGTGCCTTCGCCCAAAGTGTCAGACACAGTGGTGGA
GCCCTACAACGCCACCCTCTCAGTCCACCAGCTCGTAGAAAACACAGACGAGACCTACTGCATTGATAACGAAGC
TCTCTACGACATTTGCTTCAGAACCCTAAAGCTGACCACGCCCACCTATGGTGACCTGAACCACCTGGTGTCTGC
TACCATGAGTGGGGTCACCACCTGCCTGCGCTTCCCAGGCCAGCTCAATGCTGACCTGCGGAAGCTGGCTGTGAA
CATGGTCCCGTTTCCCCGGCTGCACTTCTTCATGCCCGGCTTTGCCCCACTGACCAGCCGGGGCAGCCAGCAGTA
CCGGGCGCTGACCGTGCCCGAGCTCACCCAGCAGATGTTTGATGCCAAGAACATGATGGCTGCCTGCGACCCCCG
CCATGGCCGCTACCTGACGGTTGCCGCCGTGTTCAGGGGCCGCATGTCCATGAAGGAGGTGGATGAGCAAATGCT
TAATGTCCAAAACAAAAACAGCAGCTATTTTGTTGAGTGGATCCCCAACAATGTGAAAACGGCTGTCTGTGACAT
CCCACCTCGGGGGCTAAAAATGTCCGCCACCTTCATTGGCAACAGCACGGCCATCCAGGAGCTGTTCAAGCGCAT
CTCCGAGCAGTTCACGGCCATGTTCCGGCGCAAGGCCTTCCTGCACTGGTACACGGGCGAGGGCATGGACGAGAT
GGAGTTCACCGAGGCCGAGAGCAACATGAATGACCTGGTGTCCGAGTACCAGCAGTACCAGGATGCCACAGCCGA
GGAGGAGGGCGAGTTCGAGGAGGAGGCTGAGGAGGAGGTGGCCTAGAGCCTTCAGTCACTGGGGAAAGCAGGGAA
GCAGTGTGAACTCTTTATTCACTCCCAGCCTGTCCTGTGGCCTGTCCCACTGTGTGCACTTGCTGTTTTCCCTGT
CCACATCCATGCTGTACAGACACCACCATTAAAGCATTTTCATAGTGAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AA
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FIGURE 1350

MREIVHLQAGQCGNQIGAKFWEVISDEHGIDPTGTYHGDSDLQLERINVYYNEATGGKYVPRAVLVDLEPGTMDS
VRSGPFGQIFRPDNFVFGQSGAGNNWAKGHYTEGAELVDSVLDVVRKEAESCDCLQGFQLTHSLGGGTGSGMGTL
LISKIREEYPDRIMNTFSVVPSPKVSDTVVEPYNATLSVHQLVENTDETYCIDNEALYDICFRTLKLTTPTYGDL
NHLVSATMSGVTTCLRFPGQLNADLRKLAVNMVPFPRLHFFMPGFAPLTSRGSQQYRALTVPELTQQMFDAKNMM
AACDPRHGRYLTVAAVFRGRMSMKEVDEQMLNVQNKNSSYFVEWIPNNVKTAVCDIPPRGLKMSATFIGNSTAIQ
ELFKRISEQFTAMFRRKAFLHWYTGEGMDEMEFTEAESNMNDLVSEYQQYQDATAEEEGEFEEEAEEEVA

FIGURE 1351

GCGGGCGCATGCGCAAGGGGGCGCGCCGCCTCTGCCCCGCGGCGAGGGTGTCTATGGAGAGGCGGCGGCCGCGGC
TGCTGAGGCGGAGGCTGAGGCAGTGGC**GATG**GCGCCCTTTCCTGAAGAAGTGGACGTCTTCACCGCCCCACACTG
GCGGATGAAGCAGCTGGTGGGGCTCTACTGCGACAAGCTTTCTAAAACCAATTTTTCCAACAACAACGATTTCCG
TGCTCTTCTGCAGTCTTTGTATGCTACTTTCAAGGAGTTCAAAATGCATGAGCAGATTGAAAATGAATACATTAT
TGGTTTGCTTCAACAACGCAGCCAGACCATTTATAATGTACATTCTGACAATAAACTCTCCGAGATGCTTAGCCT
CTTTGAAAAGGGACTGAAGAATGTTAAGAATGAATATGAACAGTTAAATTATGCAAAACAACTGAAAGAGAGATT
GGAGGCTTTTACAAGAGATTTTCTTCCTCACATGAAAGAGGAAGAGGAGGTTTTTCAGCCCATGTTAATGGAATA
TTTTACCTATGAAGAGCTTAAGGATATTAAAAAGAAAGTGATTGCACAACACTGCTCTCAGAAGGATACTGCAGA
ACTCCTTAGAGGTCTTAGCCTATGGAATCATGCTGAAGAGCGACAGAAGTTTTTTAAATATTCCGTGGATGAAAA
GTCAGATAAAGAAGCAGAAGTGTCAGAACACTCCACAGGTATAACCCATCTTCCTCCTGAGGTAATGCTGTCAAT
TTTCAGCTATCTTAATCCTCAAGAGTTATGTCGATGCAGTCAAGTAAGCATGAAATGGTCTCAGCTGACAAAAAC
GGGATCGCTTTGGAAACATCTTTACCCTGTTCATTGGGCCAGAGGTGACTGGTATAGTGGTCCCGCAACTGAACT
TGATACTGAACCTGATGATGAATGGGTGAAAAATAGGAAAGATGAAAGTCGTGCTTTTCATGAGTGGGATGAAGA
TGCTGACATTGATGAATCTGAAGAGTCTGCGGAGGAATCAATTGCTATCAGCATTGCACAAATGGAAAAACGTTT
ACTCCATGGCTTAATTCATAACGTTCTACCATATGTTGGTACTTCTGTAAAAACCTTAGTATTAGCATACAGCTC
TGCAGTTTCCAGCAAAATGGTTAGGCAGATTTTAGAGCTTTGTCCTAACCTGGAGCATCTGGATCTTACCCAGAC
TGACATTTCAGATTCTGCATTTGACAGTTGGTCTTGGCTTGGTTGCTGCCAGAGTCTTCGGCATCTTGATCTGTC
TGGTTGTGAGAAATCACAGATGTGGCCCTAGAGAAGATTTCCAGAGCTCTTGGAATTCTGACATCTCATCAAAG
TGGCTTTTTGAAAACATCTACAAGCAAAATTACTTCAACTGCGTGGAAAAATAAAGACATTACCATGCAGTCCAC
CAAGCAGTATGCCTGTTTGCACGATTTAACTAACAAGGGCATTGGAGAAGAAATAGATAATGAACACCCCTGGAC
TAAGCCTGTTTCTTCTGAGAATTTCACTTCTCCTTATGTGTGGATGTTAGATGCTGAAGATTTGGCTGATATTGA
AGATACTGTGGAATGGAGACATAGAAATGTTGAAAGTCTTTGTGTAATGGAAACAGCATCCAACTTTAGTTGTTC
CACCTCTGGTTGTTTTAGTAAGGACATTGTTGGACTAAGGACTAGTGTCTGTTGGCAGCAGCATTGTGCTTCTCC
AGCCTTTGCGTATTGTGGTCACTCATTTTGTTGTACAGGAACAGCTTTAAGAACTATGTCATCACTCCCAGAATC
TTCTGCAATGTGTAGAAAAGCAGCAAGGACTAGATTGCCTAGGGGAAAAGACTTAATTTACTTTGGGAGTGAAAA
ATCTGATCAAGAGACTGGACGTGTACTTCTGTTTCTCAGTTTATCTGGATGTTATCAGATCACAGACCATGGTCT
CAGGGTTTTGACTCTGGGAGGAGGGCTGCCTTATTGGAGCACCTTAATCTCTCTGGTTGTCTTACTATAACTGG
TGCAGGCCTGCAGGATTTGGTTTCAGCATGTCCTTCTCTGAATGATGAATACTTTTACTACTGTGACAACATTAA
CGGTCCTCATGCTGATACCGCCAGTGGATGCCAGAATTTGCAGTGTGGTTTTCGAGCCTGCTGCCGCTCTGGCGA
ATGACCCTTGACTTCTGATCTTTGTCTACTTCATTTAGCTGAGCAGGCTTTCTTTCATGCACTTTACTCATAGCA
CATTTCTTGTGTTAACCATCCCTTTTTGAGCGTGACTTGTTTTGGCCCCATTTCTTACAACTTCAGAAATCTTAA
TTTACCAGTGAATTGTAATGTTGTTTCTCTTGCAAATTATACTTTTGGTTTAGAAAGGGATTAGGTCTTTTCAAA
AGGGTGAGAACAGTCTTACATTTTTCTTTTAAATGAAATGCTTTAAAGAATGTTGGTAATGCCATGTCATTTAAA
GTATTTCATAGATAATTTTGAGTTTTAAAGTCCATGGAGGTGATTGGTTCTCTTTACACATTAACACTGTACCAA
GCTTTGCAGATCTTTTCCGACACACATGTCTGAAGACTTATTTTCAAAGACAGCACATTTTTGGAAACTAATCTC
TTTTCCGTAATATTTCCTTTATTTCAATGATTCTCAGAAGGCCAATTCAAACAAACCCACATTTAAGGTTCTTTA
GGATTATAGAATAAATTGGCTTCTGAGTGTTAGCTCAGTGAGCTAGGAAAGCACCAATCGATATTTGTTTCCTTT
AGGGATACTTTGTTCTCACCACTGTCCCTATGTCATCAAATTGGGAGAGATTTTTAAAATACCACAATCATTT
GAAGAAATGTATAAATAAAATCTACTTTGAGGACTTTACCAAGTAATACTGTTGTGTTGTGATTTTTATTATAAA
TCTCAATCCAGGTTTACTTTAGTATAGAATAGGACTACATACTTTGTCTTTGGACCTCCCATGAACTTATTACCC
TGACAAATAGTTTTAGACAGATACTGAATTTTATTGAGCTGAATTTTCTTTTTGAAATGAGTTATTCAGTAGTCA
AAATTTGAATCCGTAAGTATATCTACTTTGCTTTGTTAAAACATCATGAGAGTGGAGGCCTGCCACCCAGAAAGG
CACATACTAGTGCCTTTTAGTACAATTTTATGTCATGTAGAAGAAAATGGCAATGTTCCTCCTATTGATACAGAT
ACAGGCATATGTCATCTTATTGCGTTTTGCTTTATTGCACTTTGCAAATAATGCATTTTTTACAAATGGAAGGTT
TATGGCAACTCTGCGTTGAGCCAGTCTATTGGTGCCATGTTTCCAATAAAACTTCTCCTTTCATGTCTCGT

FIGURE 1352

MAPFPEEVDVFTAPHWRMKQLVGLYCDKLSKTNFSNNNDFRALLQSLYATFKEFKMHEQIENEYIIGLLQQRSQT
IYNVHSDNKLSEMLSLFEKGLKNVKNEYEQLNYAKQLKERLEAFTRDFLPHMKEEEEVFQPMLMEYFTYEELKDI
KKKVIAQHCSQKDTAELLRGLSLWNHAEERQKFFKYSVDEKSDKEAEVSEHSTGITHLPPEVMLSIFSYLNPQEL
CRCSQVSMKWSQLTKTGSLWKHLYPVHWARGDWYSGPATELDTEPDDEWVKNRKDESRAFHEWDEDADIDESEES
AEESIAISIAQMEKRLLHGLIHNVLPYVGTSVKTLVLAYSSAVSSKMVRQILELCPNLEHLDLTQTDISDSAFDS
WSWLGCCQSLRHLDLSGCEKITDVALEKISRALGILTSHQSGFLKTSTSKITSTAWKNKDITMQSTKQYACLHDL
TNKGIGEEIDNEHPWTKPVSSENFTSPYVWMLDAEDLADIEDTVEWRHRNVESLCVMETASNFSCSTSGCFSKDI
VGLRTSVCWQQHCASPAFAYCGHSFCCTGTALRTMSSLPESSAMCRKAARTRLPRGKDLIYFGSEKSDQETGRVL
LFLSLSGCYQITDHGLRVLTLGGGLPYLEHLNLSGCLTITGAGLQDLVSACPSLNDEYFYYCDNINGPHADTASG
CQNLQCGFRACCRSGE

FIGURE 1353

AGTGCGCATCCGGACGTAGGAGGTGGAGGTTGTGGAATTCGCCGTTCGAAAGCAGGGACTAAAAGCCCCACTTCG
TCTTACGTTCCGAAAGGAAGGCGTCTGTTGAGCCTTTCTCTCAGTCGTGAGGGAGGCGTCGACGGCGTGCGGAAG
TCCTGAGTTGAGGCTTGCGGGATCCTTTCCGGAGAAAGCGCAGGCTAAAGCCGCAGGTGAAG**ATG**TCCAACTACG
TGAACGACATGTGGCCGGGCTCGCCGCAGGAGAAGGATTCGCCCTCGACCTCGCGGTCGGGCGGGTCCAGCCGGC
TGTCGTCGCGGTCTAGGAGCCGCTCTTTTTCCAGAAGCTCTCGGTCCCATTCCCGCGTCTCGAGCCGGTTTTCGT
CCAGGAGTCGGAGGAGCAAGTCCAGGTCCCGTTCCCGAAGGCGCCACCAGCGGAAGTACAGGCGCTACTCGCGGT
CATACTCGCGGAGCCGGTCGCGATCCCGCAGCCGCCGTTACCGAGAGAGGCGCTACGGGTTCACCAGGAGATACT
ACCGGTCTCCTTCGCGGTACCGGTCCCGGTCCCGTAGCAGGTCGCGCTCTCGGGGAAGGTCGTACTGCGGAAGGG
CGTACGCGATCGCGCGGGGACAGCGCTACTACGGCTTTGGTCGCACAGTGTACCCGGAGGAGCACAGCAGATGGA
GGGACAGATCCAGGACGAGGTCGCGGAGCAGAACCCCCTTTCGCTTAAGTGAAAAAGATCGAATGGAGCTGTTAG
AAATAGCAAAAACCAATGCAGCGAAAGCTCTAGGAACAACCAACATTGACTTGCCAGCTAGTCTCAGAACTGTTC
CTTCAGCCAAAGAAACAAGCCGTGGAATAGGTGTATCAAGTAATGGTGCAAAGCCTGAAGTAAGTATTCTAGGTT
TGTCGGAACAAAACTTTCAGAAAGCCAACTGTCAAATC**TGA**TTAGCCACTTATATCTTAGACTATACTTTTGGG
AAGTCTAGAGATGTATATAATGTGCTAAATTCAAAGTAGCAAATCTGAAGATAGGCAATGTCAAACCCATGAAAA
TGGGAGATTAATGAGCTTTATTTGGCCGTGCATGGTGCCTCATGCCTGTAATGAGGCAGATGGCTTGAGTCCAGG
AGTTCAAGACTAGCCTGGGCAATGTGGCAAAACCGCGTGTTTACAAAAAATACAAAAATTAGCCAGGCATGGTGG
TGCATGCCTGTAGTCCCAGCTGTTTGGGAGGCTGAGGCAGGAGGATCTTTGAGCCTAGGATGCTAAGGTTGCAGT
GAGCCAAGATGGCACCATTGCACTCTAGCCTGGGCAGCAGAGCGAGACCCTGTCTCAAAAAATACATTTATTTTT
TTCATTTTCAGTTAACAGTGTACTCTTATAACACCGTTATTAGCTGGTACTTTGGTGATTTCTATTACTAGTTTT
TCTAAGCTATTTACAGAGTGTTTGTAGCTTTCATTTGCAGCATTATGTTCCCACAAATTCTGTACTCAGCATATA
CAGTATAGTTTATCTGCTCTATTTCTGTCTTATAGAAATCATGAATGTGGTCTGCAGACATTGATGAAGAAAATC .
TGTTGGTAATTGATACATGGGCTAAAGCATCAGAGGTTTAATTTGAAGTTTATGTTCACACACTGAAAACTTAGT
TTTTTGTTGGTAGATCCATGTGCATGCTAGAATTTGGGACAGGCACTATTTGCATAAAGTATTAAAGTCAATTT
TTAAACTAAGCAAAGGTACACGTTGTAACGGTGGGGCATCTGTGAAAAGATGTCCCTTTCATAATATATGCAAT
ATATTCCAGATGTTTTGAGAGATTACAGAAGAGGAGGCCTGCTTCACTTGCAGATAAGTTTATTATAATTCTCCA
GAAATGTGCAGGATGTGCATTAGCAAATTGCACTGTACTTTTCACTCCAGCCTGGGTGACAGAGCAAGACTCCCG
TCTCGGGGGCTT

FIGURE 1354

MSNYVNDMWPGSPQEKDSPSTSRSGGSSRLSSRSRSRSFSRSSRSHSRVSSRFSSRSRRSKSRSRSRRRHQRKYR
RYSRSYSRSRSRSRSRRYRERRYGFTRRYYRSPSRYRSRSRSRSRSRGRSYCGRAYAIARGQRYYGFGRTVYPEE
HSRWRDRSRTRSRSRTPFRLSEKDRMELLEIAKTNAAKALGTTNIDLPASLRTVPSAKETSRGIGVSSNGAKPEV
SILGLSEQNFQKANCQI

FIGURE 1355

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GGACGTAGGAGGTGGAGGTTGTGGAATTCGCCGTTCGAAAGCAGGGACTAAAAGCCCCACTTCGTCTTACGTTCC
GAAAGGAAGGCGTCTGTTGAGCCTTTCTCTCAGTCGTGAGGGAGGCGTCGACGGCGTGCGGAAGTCCTGAGTTGA
GGCTTGCGGGATCCTTTCCGGAGAAAGCGCAGGCTAAAGCCGCAGGTGAAGATGTCCAACTACGTGAACGACATG
TGGCCGGGCTCGCCGCAGGAGAAGGATTCGCCCTCGACCTCGCGGTCGGGCGGGTCCAGCCGGCTGTCGTCGCGG
TCTAGGAGCCGCTCTTTTTCCAGAAGCTCTCGGTCCCATTCCCGCGTCTCGAGCCGGTTTTCGTCCAGGAGTCGG
AGGAGCAAGTCCAGGTCCCGTTCCCGAAGGCGCCACCAGCGGAAGTACAGGCGCTACTCGCGGTCATACTCGCGG
AGCCGGTCGCGATCCCGCAGCCGCCGTTACCGAGAGAGGCGCTACGGGTTCACCAGGAGATACTACCGGTCTCCT
TCGCGGTACCGGTCCCGGTCCCGTAGCAGGTCGCGCTCTCGGGGAAGGTCGTACTGCGGAAGGGCGTACGCGATC
GCGCGGGGACAGCGCTACTACGGCTTTGGTCGCACAGTGTACCCGGAGGAGCACAGCAGATGGAGGGACAGATCC
AGGACGAGGTCGCGGAGCAGAACCCCCTTTCGCTTAAGTGAAAAAGATCGAATGGAGCTGTTAGAAATAGCAAAA
ACCAATGCAGCGAAAGCTCTAGGAACAACCAACATTGACTTGCCAGCTAGTCTCAGAACTGTTCCTTCAGCCAAA
GAAACAAGCCGTGGAATAGGTGTATCAAGTAATGGTGCAAAGCCTGAACTGTCGGAAAAGGTAACAGAAGATGGA
ACTCGAAATCCCAATGGAAAACCTACCCAGCAAAGAAGCATAGCTTTTAGCTCTAATAATTCTGTAGCAAAGCCA
ATACAAAAATCAGCTAAAGCTGCCACAGAAGAGGCATCTTCAAGATCACCAAAAATAGATCAGAAAAAAAGTCCA
TATGGACTGTGGATACCTATCTAAAAGAAGAAACTGATGGCTAAGTTTGCATGAAAACTGCACTTTATTGCAAG
TTAGTGTTTCTAGCATTATCCCATCCCTTTGAGCCATTCAGGGGTACTTGTGCATTTAAAAACCAACACAAAAG
ATGTAAATACTTAACACTCAAATATTAACATTTTAGGTTTCTCTTGCAGATATGAGAGATAGCACAGATGGACCA
AAGGTTATGCACAGGTGGGAGTCTTTTGTATATAGTTGTAAATATTGTCTTGGTTATGTAAAAATGAAATTTTTT
AGACACAGTAATTGAACTGTATTCCTGTTTTGTATATTTAATAAATTTCTTGTTTTCATTCTTAAAAAAAAAAAA
AAAAAA
```

FIGURE 1356

GCGAGTTGTGTGAGCCGCCAGTATGGCCGGGCT**ATG**GCGGCGAGCACTGGCTACGTGCGACTGTGGGGAGCGGCG
CGGTGCTGGGTGCTGCGGCGGCCGATGCTGGCCGCCGCCGGGGGGCGGGTTCCCACTGCAGCAGGAGCGTGGTTG
CTCCGAGGCCAGCGGACCTGCGACGCCTCTCCTCCTTGGGCACTGTGGGGCCGAGGCCCGGCAATTGGGGGCCAA
TGGCGGGGGTTTTGGGAAGCGAGCAGCCGCGGCGGAGGCGCATTCTCGGGGGGCGAGGACGCCTCCGAGGGCGGC
GCGGAGGAAGGAGCCGGCGGCGCGGGGGGGCAGCGCGGGCGCCGGGGAAGGCCCGGTCATAACGGCGCTCACGCCC
ATGACGATCCCCGATGTGTTTCCGCACCTGCCGCTCATCGCCATCACCCGCAACCCGGTGTTCCCGCGCTTTATC
AAGATTATCGAGGTTAAAAATAAGAAGTTGGTTGAGCTGCTGAGAAGGAAAGTTCGTCTCGCCCAGCCTTATGTC
GGCGTCTTTCTAAAGAGAGATGACAGCAATGAGTCGGATGTGGTCGAGAGCCTGGATGAAATCTACCACACGGGG
ACGTTTGCCCAGATCCATGAGATGCAGGACCTTGGGGACAAGCTGCGCATGATCGTCATGGGACACAGAAGAGTC
CATATCAGCAGACAGCTGGAGGTGGAGCCCGAGGAGCCGGAGGCGGAGAACAAGCACAAGCCCCGCAGGAAGTCA
AAGCGGGGCAAGAAGGAGGCGGAGGACGAGCTGAGCGCCAGGCACCCGGCGGAGCTGGCGATGGAGCCCACCCCT
GAGCTCCCGGCTGAGGTGCTCATGGTGGAGGTAGAGAACGTTGTCCACGAGGACTTCCAGGTCACGGAGGAGGTG
AAAGCCCTGACTGCAGAGATCGTGAAGACCATCCGGGACATCATTGCCTTGAACCCTCTCTACAGGGAGTCAGTG
CTGCAGATGATGCAGGCTGGCCAGCGGGTGGTGGACAACCCCATCTACCTGAGCGACATGGGCGCCGCGCTCACC
GGGGCCGAGTCCCATGAGCTGCAGGACGTCCTGGAAGAGACCAATATTCCTAAGCGGCTGTACAAGGCCCTCTCC
CTGCTGAAGAAGGAATTTGAACTGAGCAAGCTGCAGCAGCGCCTGGGGCGGGAGGTGGAGGAGAAGATCAAGCAG
ACCCACCGTAAGTACCTGCTGCAGGAGCAGCTAAAGATCATCAAGAAGGAGCTGGGCCTGGAGAAGGACGACAAG
GATGCCATCGAGGAGAAGTTCCGGGAGCGCCTGAAGGAGCTCGTGGTCCCCAAGCACGTCATGGATGTTGTGGAC
GAGGAGCTGAGCAAGCTGGGCCTGCTGGACAACCACTCCTCGGAGTTCAATGTCACCCGCAACTACCTAGACTGG
CTCACGTCCATCCCTTGGGGCAAGTACAGCAACGAGAACCTGGACCTGGCGCGGGCACAGGCAGTGCTGGAGGAA
GACCACTACGGCATGGAGGACGTCAAGAAACGCATCCTGGAGTTCATTGCCGTTAGCCAGCTCCGCGGCTCCACC
CAGGGCAAGATCCTCTGCTTCTATGGCCCCCCTGGCGTGGGTAAGACCAGCATTGCTCGCTCCATCGCCCGCGCC
CTGAACCGAGAGTACTTCCGCTTCAGCGTCGGGGGCATGACTGACGTGGCTGAGATCAAGGGCCACAGGCGGACC
TACGTGGGCGCCATGCCCGGGAAGATCATCCAGTGTTTGAAGAAGACCAAGACGGAGAACCCCCTGATCCTCATC
GACGAGGTGGACAAGATCGGCCGAGGCTACCAGGGGGACCCGTCGTCGGCACTGCTGGAGCTGCTGGACCCAGAG
CAGAATGCCAACTTCCTGGACCACTACCTGGACGTGCCCGTGGACTTGTCCAAGGTGCTGTTCATCTGCACGGCC
AACGTCACGGACACCATCCCCGAGCCGCTGCGAGACCGTATGGAGATGATCAACGTGTCGGGCTACGTGGCCCAG
GAGAAGCTGGCCATTGCGGAGCGCTACCTGGTGCCCCAGGCTCGCGCCCTGTGTGGCTTGGATGAGAGCAAGGCC
AAGCTGTCATCGGACGTGCTGACGCTGCTCATCAAGCAGTACTGCCGCGAGAGCGGTGTCCGCAACCTGCAGAAG
CAAGTGGAGAAGGTGTTACGGAAATCGGCCTACAAGATTGTCAGCGGCGAGGCCGAGTCCGTGGAGGTGACGCCC
GAGAACCTGCAGGACTTCGTGGGGAAGCCCGTGTTCACCGTGGAGCGCATGTATGACGTGACACCGCCCGGCGTG
GTCATGGGGCTGGCCTGGACCGCAATGGGAGGCTCCACGCTGTTTGTGGAGACATCCCTGAGACGGCCACAGGAC
AAGGATGCCAAGGGTGACAAGGATGGCAGCCTGGAGGTGACAGGCCAGCTGGGGGAGGTGATGAAGGAGAGCGCC
CGCATAGCCTACACCTTCGCCAGAGCCTTCCTCATGCAGCACGCCCCCGCCAATGACTACCTGGTGACCTCACAC
ATCCACCTGCATGTGCCCGAGGGCGCCACCCCCAAGGACGGCCCAAGCGCAGGCTGCACCATCGTCACGGCCCTG
CTGTCCCTGGCCATGGGCAGGCCTGTCCGGCAGAATCTGGCCATGACTGGCGAAGTCTCCCTCACGGGCAAGATC
CTGCCTGTTGGTGGCATCAAGGAGAAGACCATTGCGGCCAAGCGCGCAGGGGTGACGTGCATCGTCCTGCCAGCC
GAGAACAAGAAGGACTTCTACGACCTGGCAGCCTTCATCACCGAGGGCCTGGAGGTGCACTTCGTGGAACACTAC
CGGGAGATCTTCGACATCGCCTTCCCGGACGAGCAGGCAGAGGCGCTGGCCGTGGAACGG**TGA**CGGCCACCCCGG
GACTGĆAGGCGGCGGATGTCAGGCCCTGTCTGGGCCAGAACTGAGCGCTGTGGGGAGCGCGCCCGGACCTGGCAG
TGGAGCCACCGAGCGAGCAGCTCGGTCCAGTGACCCAGATCCCAGGGACCTCAGTCGGCTTAATCAGAGTGTGGC
ATAGAAGCTATTTAATGATTAAAGTCATTTGCAGTA

FIGURE 1357

MAASTGYVRLWGAARCWVLRRPMLAAAGGRVPTAAGAWLLRGQRTCDASPPWALWGRGPAIGGQWRGFWEASSRG
GGAFSGGEDASEGGAEEGAGGAGGSAGAGEGPVITALTPMTIPDVFPHLPLIAITRNPVFPRFIKIIEVKNKKLV
ELLRRKVRLAQPYVGVFLKRDDSNESDVVESLDEIYHTGTFAQIHEMQDLGDKLRMIVMGHRRVHISRQLEVEPE
EPEAENKHKPRRKSKRGKKEAEDELSARHPAELAMEPTPELPAEVLMVEVENVVHEDFQVTEEVKALTAEIVKTI
RDIIALNPLYRESVLQMMQAGQRVVDNPIYLSDMGAALTGAESHELQDVLEETNIPKRLYKALSLLKKEFELSKL
QQRLGREVEEKIKQTHRKYLLQEQLKIIKKELGLEKDDKDAIEEKFRERLKELVVPKHVMDVVDEELSKLGLLDN
HSSEFNVTRNYLDWLTSIPWGKYSNENLDLARAQAVLEEDHYGMEDVKKRILEFIAVSQLRGSTQGKILCFYGPP
GVGKTSIARSIARALNREYFRFSVGGMTDVAEIKGHRRTYVGAMPGKIIQCLKKTKTENPLILIDEVDKIGRGYQ
GDPSSALLELLDPEQNANFLDHYLDVPVDLSKVLFICTANVTDTIPEPLRDRMEMINVSGYVAQEKLAIAERYLV
PQARALCGLDESKAKLSSDVLTLLIKQYCRESGVRNLQKQVEKVLRKSAYKIVSGEAESVEVTPENLQDFVGKPV
FTVERMYDVTPPGVVMGLAWTAMGGSTLFVETSLRRPQDKDAKGDKDGSLEVTGQLGEVMKESARIAYTFARAFL
MQHAPANDYLVTSHIHLHVPEGATPKDGPSAGCTIVTALLSLAMGRPVRQNLAMTGEVSLTGKILPVGGIKEKTI
AAKRAGVTCIVLPAENKKDFYDLAAFITEGLEVHFVEHYREIFDIAFPDEQAEALAVER

FIGURE 1358A

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TCAACATATGAAAAATCAATGTAATATTTCATATTAACAGTTGGAAGACTCACAATTCATAGTTTCAGAATTTAC
AACACAAACCTACAGGAATAAAGACAATGTAGTATTAGAATAAGGTCAGATATATAGATCAATGGACAGAATTGA
CAGTCCAGAAATACACCCATACGATTACGGTCACCTGATTTTTGACTAAGGTTCCAAAACAATTCACTAGGGGAA
AGAATAGTCTTGTCAAAAAATGGTGCTCAGACAAGTGGATAGCCATAAGCACAGAATGAGTTTGGACCCCTATCT
CAAATCTCAAATACAAACATTAACTCCGAATTAATCAAATGCCTAAATTTAAGAGCTAAAATTTTAAAGCTCTTA
GAAGAAACATAGGTACACATCTTTGTGACTTTGAATTAGGTCACGGTTTCCTTGACATGACACTTAAAAGTACA
AGCAACAAAAGAAAAAATAGATAAAATGAACTTCAGCAAAATTAGAATGTTTATGCTTCAGAAAACACTGTGAA
GAAAGTGATCAGACAACTCACAGAATGGGAAAAATATTTGTGAATCATATCTCTTAATAAGGGTCCAGCAGAAAA
GGGCAAAGGTGGAAATGGAGGAGGAAAACCTCCTTCTGGTCCAAACCGAATGAATGGTCATCACCAACAGAATGG
AGTGGAAAACATGATGTTGTTTGAAGTTGTTAAAATGGGCAAGAGTGCTATGCAGTCGGTGGTAGATGATTGGAT
AGAATCATACAAGCATGACCGAGATATAGCACTTCTTGACCTTATCAACTTTTTTATTCAGTGTTCAGGCTGTAA
AGGAGTTGTCACAGCAGAAATGTTTAGACATATGCAGAACTCTGAGATAATTCGAAAAATGACTGAAGAATTCGA
TGAGGATAGTGGAGATTATCCACTTACCATGGCTGGTCCTCAGTGGAAGAAGTTCAAATCCAGTTTTTGTGAATT
CATTGGCGTGTTAGTACGGCAATGTCAATATAGTATCATATATGATGAGTATATGATGGATACAGTCATTTCACT
TCTTACAGGATTGTCTGACTCACAAGTCAGAGCATTTCGACATACAAGCACCCTGGCAGCTATGAAGTTGATGAC
AGCTTTGGTGAATGTGGCACTAAATCTTAGCATTAATATGGATAATACACAAAGACAATATGAAGCAGAACGAAA
TAAAATGATTGGGAAACGAGCCAATGAGAGGCTAGAACTCCTGCTACAAAAGCGGAAAGAGCTTCAGGAAAATCA
AGATGAAATAGAAAATATGATGAATGCAATATTTAAAGGAGTGTTTGTACATAGATACCGTGATGCGATACGTGA
AATTCGAGCTATTTGCATTGAAGAGATTGGCATTTGGATGAAGATGTATAGTGATGCCTTTCTTAATGACAGTTA
TTTAAAATATGTTGGTTGGACTATGCATGATAAGCAAGGTGAAGTAAGACTCAAATGTCTTACTGCTCTACAAGG
GCTTTATTATAACAAAGAGCTTAATTCCAAACTGGAACTTTTTACCAGTCGGTTCAAGGATAGAATTGTGTCTAT
GACCCTTGACAAAGAATATGATGTTGCAGTACAAGCAATAAAATTACTCACTCTTGTTTTACAGAGTAGTGAAGA
AGTTCTCACTGCAGAAGATTGTGAAAATGTCTATCATCTGGTTTATTCAGCTCACCGGCCAGTAGCAGTAGCAGC
TGGAGAATTTCTCTACAAAAAGCTCTTCAGTCGTAGAGATCCAGAGGAGGATGGAATGATGAAAAGAAGAGGAAG
ACAAGGTCCAAATGCCAACCTTGTTAAGACATTGGTTTTTTTCTTTCTAGAAAGTGAGTTACATGAGCATGCAGC
ATACCTTGTGGATAGCATGTGGGACTGTGCTACTGAGCTGCTGAAAGACTGGGAATGTATGAATAGCTTGTTACT
GGAAGAGCCACTTAGTGGAGAGGAAGCACTAACAGATAGGCAAGAGAGTGCTCTGATTGAAATAATGCTTTGTAC
CATTAGACAAGCGGCTGAATGTCATCCTCCCGTGGGAAGAGGGACAGGAAAAAGGGTGCTTACAGCAAAGGAGAA
GAAGACACAGTTGGATGATAGGACAAAAATCACTGAGCTTTTTGCCGTGGCCCTTCCTCAGTTATTAGCAAAATA
CTCTGTAGATGCAGAAAAGGTGACTAACTTGTTGCAGTTGCCTCAGTACTTTGATTTGGAAATATATACCACTGG
ACGATTAGAAAACGATTTGGATGCCTTATTGCGACAGATCCGGAATATTGTAGAGAAGCACACAGATACAGATGT
TTTGGAAGCATGTTCTAAAACTTACCATGCACTCTGTAATGAAGAGTTCACAATCTTCAACAGAGTAGATATTTC
AAGAAGTCAACTGATAGATGAATTGGCAGATAAATTTAACCGGCTTCTTGAAGATTTTCTGCAAGAGGGTGAAGA
ACCTGATGAAGATGATGCATATCAGGTATTGTCAACATTGAAGAGGATCACTGCTTTTCATAATGCCCATGACCT
TTCAAAGAGGGATTTATTTGCTTGTAATTACAAACTCTTGAAAACTGGAATCGAAAATGGAGACATGCCTGAGCA
GATTGTTATTCACGCACTGCAGTGTACTCACTATGTAATCCTTTGGCAACTTGCTAAGATAACTGAAAGCAGCTC
TACAAAGGAGGACTTGCTGCGTTTAAAGAAACAAATGAGAGTATTTTGTCAGATATGTCAACATTACCTGACCAA
CGTGAATACTACTGTTAAGGAACAGGCCTTCACTATTCTGTGTGATATTTTGATGATCTTCAGCCATCAGATTAT
GTCAGGAGGGCGTGACATGTTAGAGCCATTAGTGTATACCCCTGATTCTTCATTGCAGTCTGAGTTGCTCAGCTT
TATTTTGGATCATGTCTTCATTGAACAGGATGATGATAATAATAGTGCAGATGGTCAGCAAGAGGATGAAGCCAG
TAAAATTGAAGCTCTGCACAAGAGAAGAAATTTACTTGCAGCATTTGTAAGCTAATTGTATATACTGTGGTGGA
GATGAATACAGCTGCAGATATCTTCAAACAGTATATGAAGTATTATAATGACTATGGAGATATCATCAAAGAAAC
AATGAGTAAAACAAGGCAGATAGACAAAATTCAGTGTGCTAAGACCCTTATTCTCAGTCTGCAACAGCTTTTTAA
TGAAATGATACAAGAAAATGGCTATAATTTTGATAGATCATCCTCTACATTTAGTGGCATAAAAGAACTTGCTCG
ACGTTTTGCTTTAACTTTTGGACTTGATCAGTTGAAAACAAGAGAAGCCATTGCCATGCTACACAAAGATGGCAT
AGAATTTGCTTTTAAAGAGCCTAATCCGCAAGGGGAGAGCCATCCACCTTTAAATTTGGCATTTCTTGATATTCT
GAGTGAATTTCTTCTAAACTACTTCGACAAGACAAAAGAACAGTGTATGTTACTTGGAAAAGTTCATGACCTT
TCAGATGTCACTCCGAAGAGAGGATGTGTGGCTTCCACTGATGTCTTACCGAAATTCTTTGCTAGCTGGTGGTGA
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FIGURE 1358B

TGATGACACCATGTCAGTCATTAGTGGAATCAGCAGCCGGGGGTCAACAGTACGGAGTAAAAAATCAAAACCATC
TACAGGAAAACGGAAAGTGGTTGAGGGCATGCAGCTTTCACTCACTGAAGAAAGTAGTAGTAGTGACAGTATGTG
GTTAACGAGAGAACAAACACTGCACACCCCTGTTATGATGCAGACACCACAACTCACCTCCACTATTATGAGAGA
GCCCAAAAGATTACGGCCTGAGGATAGCTTCATGAGTGTTTATCCTAAGCAGACTGAACATCATCAAACACCTCT
TGATTATAATCGGCGTGGCACAAGCCTAATGGAAGATGATGAAGAGCCAATTGTGGAAGATGTTATGATGTCCTC
AGAAGGGAGGATTGAGGATCTTAATGAGGGAATGGATTTTGACACCATGGATATAGATTTGCCACCATCAAAGAA
CAGACGAGAGAGAACAGAACTGAAGCCTGATTTCTTTGATCCAGCTTCAATTATGGATGAATCAGTTCTTGGAGT
GTCAATGTTT**TAA**TACCAGTACACAATTAAATCTGTGGTGAAGTC

1528/2825
FIGURE 1359

MNGHHQQNGVENMMLFEVVKMGKSAMQSVVDDWIESYKHDRDIALLDLINFFIQCSGCKGVVTAEMFRHMQNSEI
IRKMTEEFDEDSGDYPLTMAGPQWKKFKSSFCEFIGVLVRQCQYSIIYDEYMMDTVISLLTGLSDSQVRAFRHTS
TLAAMKLMTALVNVALNLSINMDNTQRQYEAERNKMIGKRANERLELLLQKRKELQENQDEIENMMNAIFKGVFV
HRYRDAIREIRAICIEEIGIWMKMYSDAFLNDSYLKYVGWTMHDKQGEVRLKCLTALQGLYYNKELNSKLELFTS
RFKDRIVSMTLDKEYDVAVQAIKLLTLVLQSSEEVLTAEDCENVYHLVYSAHRPVAVAAGEFLYKKLFSRRDPEE
DGMMKRRGRQGPNANLVKTLVFFFLESELHEHAAYLVDSMWDCATELLKDWECMNSLLLEEPLSGEEALTDRQES
ALIEIMLCTIRQAAECHPPVGRGTGKRVLTAKEKKTQLDDRTKITELFAVALPQLLAKYSVDAEKVTNLLQLPQY
FDLEIYTTGRLENDLDALLRQIRNIVEKHTDTDVLEACSKTYHALCNEEFTIFNRVDISRSQLIDELADKFNRLL
EDFLQEGEEPDEDDAYQVLSTLKRITAFHNAHDLSKRDLFACNYKLLKTGIENGDMPEQIVIHALQCTHYVILWQ
LAKITESSSTKEDLLRLKKQMRVFCQICQHYLTNVNTTVKEQAFTILCDILMIFSHQIMSGGRDMLEPLVYTPDS
SLQSELLSFILDHVFIEQDDDNNSADGQQEDEASKIEALHKRRNLLAAFCKLIVYTVVEMNTAADIFKQYMKYYN
DYGDIIKETMSKTRQIDKIQCAKTLILSLQQLFNEMIQENGYNFDRSSSTFSGIKELARRFALTFGLDQLKTREA
IAMLHKDGIEFAFKEPNPQGESHPPLNLAFLDILSEFSSKLLRQDKRTVYVYLEKFMTFQMSLRREDVWLPLMSY
RNSLLAGGDDDTMSVISGISSRGSTVRSKKSKPSTGKRKVVEGMQLSLTEESSSSDSMWLTREQTLHTPVMMQTP
QLTSTIMREPKRLRPEDSFMSVYPKQTEHHQTPLDYNRRGTSLMEDDEEPIVEDVMMSSEGRIEDLNEGMDFDTM
DIDLPPSKNRRERTELKPDFFDPASIMDESVLGVSMF

FIGURE 1360

CTTTTTCTCCATCTCAGAACCTTCCTGCCGTCGCGTTTGCACCTCGCTGCTCCAGCCTCTGGGGCGCATTCCAAC
CTTCCAGCCTGCGACCTGCGGAGAAAAAAAATTACTTATTTTCTTGCCCCATACATACCTTGAGGCGAGCAAAAA
AATTAAATTTTAACC**ATG**AGGGAAATCGTGCACATCCAGGCTGGTCAGTGTGGCAACCAGATCGGTGCCAAGTTC
TGGGAGGTGATCAGTGATGAACATGGCATCGACCCCACCGGCACCTACCACGGGGACAGCGACCTGCAGCTGGAC
CGCATCTCTGTGTACTACAATGAAGCCACAGGTGGCAAATATGTTCCTCGTGCCATCCTGGTGGATCTAGAACCT
GGGACCATGGACTCTGTTCGCTCAGGTCCTTTTGGCCAGATCTTTAGACCAGACAACTTTGTATTTGGTCAGTCT
GGGGCAGGTAACAACTGGGCCAAAGGCCACTACACAGAGGGCGCCGAGCTGGTTGATTCTGTCCTGGATGTGGTA
CGGAAGGAGGCAGAGAGCTGTGACTGCCTGCAGGGCTTCCAGCTGACCCACTCACTGGGCGGGGGCACAGGCTCT
GGAATGGGCACTCTCCTTATCAGCAAGATCCGAGAAGAATACCCTGATCGCATCATGAATACCTTCAGTGTGGTG
CCTTCACCCAAAGTGTCTGACACCGTGGTCGAGCCCTACAATGCCACCCTCTCCGTCCATCAGTTGGTAGAGAAT
ACTGATGAGACCTATTGCATTGACAACGAGGCCCTCTATGATATCTGCTTCCGCACTCTGAAGCTGACCACACCA
ACCTACGGGGATCTGAACCACCTTGTCTCAGCCACCATGAGTGGTGTCACCACCTGCCTCCGTTTCCCTGGCCAG
CTCAATGCTGACCTCCGCAAGTTGGCAGTCAACATGGTCCCCTTCCCACGTCTCCATTTCTTTATGCCTGGCTTT
GCCCCTCTCACCAGCCGTGGAAGCCAGCAGTATCGAGCTCTCACAGTGCCGGAACTCACCCAGCAGGTCTTCGAT
GCCAAGGACATGATGGCTGCCTGTGACCCCCGCCACGGCCGATACCTCACCGTGGCTGCTGTCTTCCGTGGTCGG
ATGTCCATGAAGGAGGTCGATGAGCAGATGCTTAACGTGCAGAACAAGAACAGCAGCTACTTTGTGGAATGGATC
CCCAACAATGTCAAGACAGCCGTCTGTGACATCCCACCTCGTGGCCTCAAGATGGCAGTCACCTTCATTGGCAAT
AGCACAGCCATCCAGGAGCTCTTCAAGCGCATCTCGGAGCAGTTCACTGCCATGTTCCGCCGGAAGGCCTTCCTC
CACTGGTACACAGGCGAGGGCATGGACGAGATGGAGTTCACCGAGGCTGAGAGCAACATGAACGACCTCGTCTCT
GAGTATCAGCAGTACCAGGATGCCACCGCAGAAGAGGAGGAGGATTTCGGTGAGGAGGCCGAAGAGGAGGCC**TAA**

GGCAGAGCCCCCATCACCTCAGGCTTCTCAGTTCCCTTAGCCGTCTTACTCAACTGCCCCTTTCCTCTCCCTCAG
AATTTGTGTTTGCTGCCTCTATCTTGTTTTTTGTTTTTTCTTCTGGGGGGGGGTCTAGAACAGTGCCTGGCACAT
AGTAGGCGCTCAATAAATACTTGTTTGTTGAAAAAAAAAAAAAAAA

1530/2825
FIGURE 1361

MREIVHIQAGQCGNQIGAKFWEVISDEHGIDPTGTYHGDSDLQLDRISVYYNEATGGKYVPRAILVDLEPGTMDS
VRSGPFGQIFRPDNFVFGQSGAGNNWAKGHYTEGAELVDSVLDVVRKEAESCDCLQGFQLTHSLGGGTGSGMGTL
LISKIREEYPDRIMNTFSVVPSPKVSDTVVEPYNATLSVHQLVENTDETYCIDNEALYDICFRTLKLTTPTYGDL
NHLVSATMSGVTTCLRFPGQLNADLRKLAVNMVPFPRLHFFMPGFAPLTSRGSQQYRALTVPELTQQVFDAKDMM
AACDPRHGRYLTVAAVFRGRMSMKEVDEQMLNVQNKNSSYFVEWIPNNVKTAVCDIPPRGLKMAVTFIGNSTAIQ
ELFKRISEQFTAMFRRKAFLHWYTGEGMDEMEFTEAESNMNDLVSEYQQYQDATAEEEEDFGEEAEEEA

FIGURE 1362

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TGTTCCGCGATCTTCTCAGGCTCTCCTAGCAGCATCCATCGCCGCCACCCTATCTTCACTGGCTTCACCTTCTCC
TTCTCTCTTCGTTGCTGAGCGACAAGCTTCCTAGCGCTATGACTGTCGTCTCCGTCCCGCAGCGGGAGCCGCTCG
TCCTGGGTGGCCGCCTTGCGCCGCTTGGCTTTTCCTCCCGAGGTTACTTTGGGGCCCTCCCGATGGTGACCACGG
CTCCGCCTCCTTTACCCCGGATCCCGGACCCCCGGGCACTGCCCCCGACCCTCTTCCTCCCTCATTTCCTAGGGG
GAGATGGCCCGTGTCTGACCCCCCAGCCTCGCGCTCCAGCAGCTCTGCCCAACCGCAGCCTCGCCGTGGCGGGAG
GCACTCCTCGGGCAGCGCCGAAGAAGCGGCGAAAGAAGAAGGTGCGGGCCAGCCCCGCAGGGCAGCTGCCCAGCC
GCTTCCACCAGTACCAGCAGCACCGGCCGAGTCTGGAGGGCGGCCGGAGCCCCGCGACCGGCCCGAGCGGAGCGC
AGGAGGTCCCGGGCCCGGCCGCCGCCTTGGCCCCGAGTCCTGCAGCCGCAGCCGGCACGGAGGGAGCCAGCCCCG
ACCTTGCCCCGCTGCGGCCCGCGGCTCCCGGCCAAACCCCCCTCAGGAAAGAGGTTTTAAAATCAAAGATGGGAA
AATCGGAGAAAATTGCCCTTCCCCATGGCCAGCTTGTTCATGGTATACACTTGTATGAGCAACCAAAGATAAACA
GACAGAAAAGCAAATATAACTTGCCACTAACCAAGATCACCTCTGCAAAAAGAAATGAAAACAACTTTTGGCAGG
ATTCTGTTTCATCTGACAGAATTCAGAAGCAGGAAAAAAAGCCTTTTAAAAATACCGAGAACATTAAAAATTCGC
ATTTGAAGAAATCAGCATTTCTAACTGAAGTGAGCCAAAAGGAAAATTATGCTGGGGCAAAGTTTAGTGATCCAC
CTTCTCCTAGTGTTCTTCCAAAGCCTCCTAGTCACTGGATGGGAAGCACTGTTGAAAATTCCAACCAAAACAGGG
AGCTGATGGCAGTACACTTAAAAACCCTCCTCAAAGTTCAAACTTAGATTTCAGATTTCAGTATGTGTGTAAAAC
ATAATTTTTCCCATATCCCTGGACTCTTGAGAAAATTGGTACAGAAATGGAAATTTGCCTTGTTGCAACATACAA
TTGCAAAAGATGAGTTTAAAAAATTACATACAAACAGCTTGTATTATATTTTATATTTTGTAAATACTGTATACC
ATGTATTATGTGTATATTGTTCATACTTGAGAGGTATATTATAGTTTTGTTATGAAAGTATGTATTTTGCCCTGC
CCACATTGCAGGTGTTTTGTATATATACAATGGATAAATTTTAAGTGTGTGCTAAGGCACATGGAAGACCGATTT
TATTTGCACAAGGTACTGAGATTTTTTTCAAGAAACAGCTGTCAAATCTCAAGGTGAAGATCTAAATGTGAACAG
TTTACTAATGCACTACTGAAGTTTAAATCTGTGGCACAATCAATGTAAGCATGGGGTTTGTTTCTCTAAATTGAT
TTGTAATCTGAAATTACTGAACAACTCCTATTCCCATTTTTGCTAAACTCAATTTCTGGTTTTGGTATATATCCA
TTCCAGCTTAATGCCTCTAATTTTAATGCCAACAAAATTGGTTGTAATCAAATTTTAAAATAATAATAATTTGGC
CCCCCTTTTAAAATAGTCTTGACTCTTTGTGTGTGACTGTTTCTCATGTTTGAATGTGTGACTAGGAGATGATT
TTGTGTGGTTGGATTTTTTTGACTTCTACTTTACTGGCTGAGTGTGAGCCGCCATGCCTGGCCATAATCTACATT
TTCTTACCAGGAGCAGCATTGAGGTTTTTGAGCATAGTACTTGACTACTCTAGAGGCTGAGACGGGAGCATCTCT
TGAGCCTGAGAAGTGGAGATTGCAATTGAGCTAGGATCAGGCCACTGCACTCCAGCCTGGGTAACAGACGCTGTC
TCAAAAAAAAGGCCAAGAGAAAGTAAGGGAGACAGA
```

FIGURE 1363

MTVVSVPQREPLVLGGRLAPLGFSSRGYFGALPMVTTAPPPLPRIPDPRALPPTLFLPHFLGGDGPCLTPQPRAP
AALPNRSLAVAGGTPRAAPKKRRKKKVRASPAGQLPSRFHQYQQHRPSLEGGRSPATGPSGAQEVPGPAAALAPS
PAAAAGTEGASPDLAPLRPAAPGQTPLRKEVLKSKMGKSEKIALPHGQLVHGIHLYEQPKINRQKSKYNLPLTKI
TSAKRNENNFWQDSVSSDRIQKQEKKPFKNTENIKNSHLKKSAFLTEVSQKENYAGAKFSDPPSPSVLPKPPSHW
MGSTVENSNQNRELMAVHLKTLLKVQT

FIGURE 1364

CCGGCTGCTCAGCGCGCTCCGCGGTC**ATG**GAGATCCCCGGGAGCTTGTGCAAGAAAGTCAAGCTGAGCAATAACG
CGCAGAACTGGGGAATGCAGAGAGCAACCAATGTCACCTACCAAGCCCATCATGTCAGCAGGAACAAGAGAGGTC
AGGTGGTGGGGACCAGAGGTGGCTTTCGTGGTTGCACAGTTTGGCTAACAGGCTTGTCTGGAGCGGGAAAGACTA
CTGTGAGCATGGCCTTGGAGGAGTACCTGGTTTGTCATGGTATTCCATGCTACACTCTGGATGGTGACAATATTC
GTCAAGGTCTCAATAAAAATCTTGGCTTTAGTCCTGAAGACAGAGAAGAGAATGTTCGACGCATCGCAGAAGTTG
CTAAACTGTTTGCAGATGCTGGCTTAGTGTGCATCACAAGTTTCATATCACCTTACACTCAGGATCGCAACAATG
CAAGGCAAATTCATGAAGGTGCAAGTTTACCGTTTTTTGAAGTATTTGTTGATGCTCCTCTGCATGTTTGTGAAC
AGAGGGATGTCAAAGGACTCTACAAAAAAGCCCGGGCAGGAGAAATTAAAGGTTTCACTGGGATCGATTCTGAAT
ATGAAAAGCCAGAGGCCCCTGAGTTGGTGCTGAAAACAGACTCCTGTGATGTAAATGACTGTGTCCAGCAAGTTG
TGGAACTTCTACAGGAACGGGATATTGTACCTGTGGATGCATCTTATGAAGTAAAAGAACTATATGTGCCAGAAA
ATAAACTTCATTTGGCAAAAACAGATGCGGAAACATTACCAGCACTGAAAATTAATAAAGTGGATATGCAGTGGG
TGCAGGTTTTGGCAGAAGGTTGGGCAACCCCATTGAATGGCTTTATGAGAGAGAGGGAGTACTTGCAGTGCCTTC
ATTTTGATTGTCTTCTGGATGGAGGTGTCATTAACTTGTCAGTACCTATAGTTCTGACTGCGACTCATGAAGATA
AAGAGAGGCTGGACGGCTGTACAGCATTTGCTCTGATGTATGAGGGCCGCCGTGTGGCCATTCTTCGCAATCCAG
AGTTTTTTGAGCACAGGAAAGAGGAGCGCTGTGCCAGACAGTGGGGAACGACATGCAAGAACCACCCCTATATTA
AGATGGTGATGGAACAAGGAGATTGGCTGATTGGAGGAGATCTTCAAGTCTTGGATCGAGTTTATTGGAATGATG
GTCTTGATCAGTATCGTCTTACTCCTACTGAGCTAAAGCAGAAATTTAAAGATATGAATGCTGATGCTGTCTTTG
CATTTCAACTACGCAACCCAGTGCACAATGGACATGCCCTGTTAATGCAGGATACCCATAAGCAACTTCTAGAGA
GGGGCTACCGGCGCCCTGTCCTCCTCCTCCACCCTCTGGGTGGCTGGACAAAGGATGACGATGTTCCTTTGATGT
GGCGTATGAAGCAGCATGCTGCAGTGTTGGAGGAAGGAGTTCTGAATCCTGAGACGACAGTGGTGGCCATCTTCC
CATCTCCCATGATGTATGCTGGACCAACTGAGGTCCAGTGGCATTGCAGAGCACGGATGGTTGCAGGAGCCAACT
TTTACATTGTTGGACGAGACCCTGCTGGCATGCCTCATCCAGAAACAGGGAAGGATCTTTATGAGCCAAGTCATG
GTGCCAAAGTGCTGACGATGGCCCCTGGTTTAATCACTTTGGAAATAGTTCCCTTTCGAGTTGCAGCTTACAACA
AGAAAAAGAAGCGTATGGACTACTATGACTCTGAACACCATGAAGACTTTGAATTTATTTCAGGAACACGAATGC
GCAAACTTGCTCGAGAAGGCCAGAAACCACCTGAAGGTTTCATGGCTCCCAAGGCTTGGACCGTGCTGACAGAAT
ACTACAAATCCTTGGAGAAAGCT**TAG**CTGTTAACCCAGTCACTCCACCTTTGACACATTACTAGTAACAAGAGG
GGACCACATAGTCTCTGTTGGCATTTCTTTGTGGTGTCTGTCTGGACATGCTTCCTAAAAACAGACCATTTTCCT
TAACTTGCATCAGTTTTGGTCTGCCTTATGAGTTCTGTTTTGAACAAGTGTAACACACTGATGGTTTTAATGTAT
CTTTTCCACTTATTATAGTTATATTCCTACAATACAATTTTAAAATTGTCTTTTATATTATATTTATGCTTCTG
TGTCATGATTTTTTCAAGCTGTTATATTAGTTGTAACCAGTAGTATTCACATTAAATCTTGCTTTTTTTCCCCTT
AAAAAAAAAAAAAAA

FIGURE 1365

MEIPGSLCKKVKLSNNAQNWGMQRATNVTYQAHHVSRNKRGQVVGTRGGFRGCTVWLTGLSGAGKTTVSMALEEY
LVCHGIPCYTLDGDNIRQGLNKNLGFSPEDREENVRRIAEVAKLFADAGLVCITSFISPYTQDRNNARQIHEGAS
LPFFEVFVDAPLHVCEQRDVKGLYKKARAGEIKGFTGIDSEYEKPEAPELVLKTDSCDVNDCVQQVVELLQERDI
VPVDASYEVKELYVPENKLHLAKTDAETLPALKINKVDMQWVQVLAEGWATPLNGFMREREYLQCLHFDCLLDGG
VINLSVPIVLTATHEDKERLDGCTAFALMYEGRRVAILRNPEFFEHRKEERCARQWGTTCKNHPYIKMVMEQGDW
LIGGDLQVLDRVYWNDGLDQYRLTPTELKQKFKDMNADAVFAFQLRNPVHNGHALLMQDTHKQLLERGYRRPVLL
LHPLGGWTKDDDVPLMWRMKQHAAVLEEGVLNPETTVVAIFPSPMMYAGPTEVQWHCRARMVAGANFYIVGRDPA
GMPHPETGKDLYEPSHGAKVLTMAPGLITLEIVPFRVAAYNKKKKRMDYYDSEHHEDFEFISGTRMRKLAREGQK
PPEGFMAPKAWTVLTEYYKSLEKA

FIGURE 1366A

```
AGAGATGGGTCTCGCCATCACCATGTTGCCCAGTCTGGTCTCCAACTCCTGGGCTCAAGCGATCCTCCTGCCTTG
GTCTCCCAAAGTGCTGGGATTACAGGTGTGAGCCCCCACACCCGGCCTGAGTGAGTGGGTTCTGAATGGTGACTG
TTGTTGTCCATAGCCTTCCCCCTGCTTCTGAGAGTGGAGTCCCTCCCCTCATGTTGGAGACCTCCCAAGGTCCAT
GTGGTCCTATAGGGGCTGTTCAGCCTCCCTAGCCCCTTAACGTGTCAGGTAATACTGTATATATTCCATGAAATG
TGAATAATTAGTTATATAATTCCTAAGCACTTATTTTAAAAAACAGCAATGTGATGCTTAACTCTTCCCACCTCT
GTTCCTGTCCCCCTTAGAAAACCACTGATAACTCTTTTTTTTTTTGAGACGGAGTCTTGCCCTGTCGCCCAGGCT
GGAGTGTAGTGGCCTGATCTCGGCTCGGCTCATTGTAACCTCCGCCTCGGGTTTGAGCGATTCTCCTGCCTCAGC
CTCCTGAGTAGCTGGGATTATAGGCGTGCACCACCACGCCTGGCTAATTTTTTGTATCTTTAGTAGGGACGGGTT
TCACCATGTTGGCCAGAGTGGTCTTGAACTCCTGACCTTGTGATCCGCTCGCCTCAGCCTCCCAAAGTGCTGGGA
TTACAGGCATGAGCCACCGTGCCTGTCCTAGAACCACTGGTAACTCTTAACTGXXXAGTGTTCTAAGAACGGAAG
CATCTGGGCTGG**ATG**GAATTTAGCATCAAGCAGAGTCCCCTTTCTGTTCAGAGTGTTGTAAAGTGCATAAAGATG
AAGCAGGCACCAGAAATCCTCGGCAGTGCCAACGGGAAGACTCCGAGCTGCGAGGTGAACCGCGAGTGTTCTGTG
TTCCTCAGCAAAGCCCAGCTCTCCAGTAGCCTGCAGGAGGGGGTCATGCAGAAGTTTAACGGCCACGACGCCCTG
CCCTTTATTCCAGCCGACAAGCTGAAAGATCTTACTTCCCGGGTGTTTAATGGAGAACCCGGCGCACACGATGCC
AAACTGCGTTTTGAGTCCCAGGAAATGAAAGGGATTGGGACACCCCCTAACACTACCCCTATCAAAAATGGCTCT
CCAGAAATTAAGCTGAAAATCACCAAAACATACATGAATGGGAAGCCTCTCTTTGAATCTTCCATTTGTGGTGAC
AGTGCTGCTGATGTGTCTCAGTCAGAAGAAAATGGACAAAAACCAGAAAACAAGGCGAGAAGGAACAGGAAGAGG
AGCATAAAATATGACTCCTTGCTGGAGCAGGGCCTTGTCGAAGCAGCTCTTGTGTCTAAGATCTCAAGTCCTTCA
GATAAAAAGATTCCAGCTAAGAAAGAGTCTTGTCCAAACACTGGAAGAGACAAAGACCACCTGTTGAAATACAAC
GTTGGTGATTTGGTGTGGTCCAAAGTGTCGGGTTACCCTTGGTGGCCTTGCATGGTTTCTGCAGATCCACTCCTT
CACAGCTATACCAAACTTAAAGGTCAGAAAAAGAGTGCACGCCAGTATCACGTACAGTTCTTTGGTGACGCCCCA
GAAAGAGCTTGGATATTTGAGAAGAGCCTCGTAGCTTTTGAAGGAGAAGGACAGTTTGAAAAATTATGCCAGGAA
AGTGCCAAGCAGGCACCCACGAAAGCTGAGAAAATTAAGCTATTGAAACCAATTTCAGGGAAATTGAGGGCCCAG
TGGGAAATGGGCATTGTTCAAGCAGAAGAAGCTGCAAGCATGTCAGTGGAGGAGCGGAAAGCCAAGTTCACCTTT
CTCTATGTGGGGGACCAGCTTCATCTCAACCCTCAAGTAGCCAAGGAGGCTGGCATTGCTGCAGAGTCTTTGGGA
GAAATGGCAGAATCCTCAGGAGTCAGTGAAGAAGCTGCTGAAAACCCCAAGTCTGTGAGAGAAGAGTGCATTCCC
ATGAAGAGAAGGCGGAGGGCCAAACTGTGTAGCTCTGCAGAGACCCTGGAGAGTCACCCCGACATAGGGAAGAGT
ACTCCTCAAAAGACGGCAGAGGCTGACCCCAGAAGAGGAGTAGGGTCTCCTCCTGGGAGGAAGAAGACCACAGTC
TCCATGCCACGAAGCAGGAAGGGAGATGCAGCATCCCAGTTTTTGGTCTTCTGTCAAAAACACAGGGATGAGGTG
GTAGCTGAGCACCCAGATGCTTCAGGTGAGGAGATTGAAGAGCTGCTCAGGTCACAGTGGAGTCTGCTGAGTGAG
AAGCAGAGAGCACGCTACAACACCAAGTTTGCCCTGGTGGCCCCTGTCCAGGCTGAAGAAGACTCTGGTAATGTA
AATGGGAAAAAAGAAACCACACAAAGAGGATACAGGACCCTACAGAAGATGCTGAAGCTGAGGACACACCCAGG
AAAAGACTCAGGACGGACAAGCACAGTCTTCGGAAGAGAGACACAATCACTGACAAAACGGCCAGAACAAGCTCT
TACAAGGCCATGGAGGCAGCCTCCTCGCTCAAGAGCCAGGCAGCAACGAAAAATCTGTCTGATGCATGTAAACCA
CTGAAGAAGCGAAATCGGGCTTCCACGGCAGCATCTTCAGCTCTTGGGTTTAGCAAAAGTTCATCTCCTTCTGCA
TCCTTAACTGAGAATGAGGTCTCGGACAGCCCGGGAGACGAGCCCTCGGAGTCCCCATACGAAAGTGCAGACGAA
ACACAAACTGAAGTATCTGTCTCATCCAAAAAGTCTGAGCGAGGAGTGACTGCCAAAAAGGAGTATGTGTGCCAG
CTGTGTGAGAAGCCGGGCAGCCTCCTGCTCTGTGAAGGACCCTGCTGCGGAGCTTTCCACCTCGCCTGCCTTGGG
CTTTCCCGGAGGCCAGAAGGGAGGTTCACCTGCAGCGAGTGTGCCTCAGGGATTCACTCATGTTTCGTGTGTAAA
GAGAGCAAGACAGATGTTAAGCGCTGTGTGGTAACTCAGTGTGGAAAATTTTACCATGAGGCTTGTGTGAAAAAA
TACCCTCTGACTGTATTTGAGAGCCGAGGTTTCCGCTGCCCCCTCCACAGCTGTGTGAGCTGCCATGCTTCCAAC
CCTTCAAACCCAAGGCCGTCAAAAGGTAAAATGATGCGGTGTGTCCGCTGCCCCGTTGCCTATCACAGCGGGGAT
GCTTGTCTGGCAGCAGGATGCTCAGTGATCGCCTCCAACAGCATCATCTGCACTGCCCACTTCACTGCTCGGAAG
GGGAAGCGACACCACGCCCACGTCAACGTGAGCTGGTGCTTCGTGTGCTCCAAAGGGGGGAGCCTTCTGTGCTGT
GAGTCCTGCCCAGCGGCCTTCCACCCTGACTGCCTGAACATCGAGATGCCTGACGGCAGCTGGTTCTGCAATGAC
TGCAGGGCTGGGAAGAAGCTGCACTTCCAGGATATCATTTGGGTGAAACTTGGGAACTACAGATGGTGGCCGGCA
GAAGTTTGCCATCCCAAAAATGTTCCCCCAAATATTCAGAAAATGAAGCACGAGATTGGAGAATTCCCTGTGTTT
TTCTTTGGGTCTAAAGATTATTACTGGACGCATCAGGCGCGAGTGTTCCCGTACATGGAGGGGGACCGGGGCAGC
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FIGURE 1366B

CGCTACCAGGGGGTCAGAGGGATCGGAAGAGTCTTCAAAAACGCACTGCAAGAAGCTGAAGCTCGTTTTCGTGAA
ATTAAGCTTCAGAGGGAAGCCCGAGAAACACAGGAGAGCGAGCGCAAGCCCCCACCATACAAGCACATCAAGGTG
AATAAGCCTTACGGGAAAGTCCAGATCTACACAGCGGATATTTCAGAAATCCCTAAGTGCAACTGCAAGCCCACA
GATGAGAATCCTTGTGGCTTTGATTCGGAGTGTCTGAACAGGATGCTGATGTTTGAGTGCCACCCGCAGGTGTGT
CCCGCGGGCGAGTTCTGCCAGAACCAGTGCTTCACCAAGCGCCAGTACCCAGAGACCAAGATCATCAAGACAGAT
GGCAAAGGGTGGGGCCTGGTCGCCAAGAGGGACATCAGAAAGGGAGAATTTGTTAACGAGTACGTTGGGGAGCTG
ATCGACGAGGAGGAGTGCATGGCGAGAATCAAGCACGCACACGAGAACGACATCACCCACTTCTACATGCTCACT
ATAGACAAGGACCGTATAATAGACGCTGGCCCCAAAGGAAACTACTCTCGATTTATGAATCACAGCTGCCAGCCC
AACTGTGAGACCCTCAAGTGGACAGTGAATGGGGACACTCGTGTGGGCCTGTTTGCCGTCTGTGACATTCCTGCA
GGGACGGAGCTGACTTTTAACTACAACCTCGATTGTCTGGGCAATGAAAAAACGGTCTGCCGGTGTGGAGCCTCC
AATTGCAGTGGATTCCTCGGGGATAGACCAAAGACCTCGACGACCCTTTCATCAGAGGAAAAGGGCAAAAAGACC
AAGAAGAAACGAGGCGGCGCAGAGCAAAAGGGGAAGGGAAGAGGCAGTCAGAGGACGAGTGCTTCCGCTGCGGT
GATGGCGGGCAGCTGGTGCTGTGTGACCGCAAGTTCTGCACCAAGGCCTACCACCTGTCCTGCCTGGGCCTTGGC
AAGCGGCCCTTCGGGAAGTGGGAATGTCCTTGGCATCATTGTGACGTGTGTGGCAAACCTTCGACTTCATTTTGC
CACCTCTGCCCCAATTCGTTCTGTAAGGAGCACCAGGACGGGACAGCCTTCAGCTGCACCCCGGACGGGCGGTCC
TACTGCTGTGAGCATGACTTAGGGGCGGCATCGGTCAGAAGCACCAAGACTGAGAAGCCCCCCCCAGAGCCAGGG
AAGCCGAAGGGGAAGAGGCGGCGGCGGAGGGGCTGGCGGAGAGTCACAGAGGGCAAA**TAG**CGCCAGGCGGCCGCT
TGGCCGGATCCAGGGGCGGTGCAGGGCGGCCGGCCCTGCCTGCGGGAGAGGGCGAGCATGAACTGGCCCGGAGGA
CCCAGCTCGAGCCGCCAGGACACAGACGTACAGGCCTCCTCGGGAGGGAGCGCCTCCCCACCACTGAGCCATCCT
CAGCAGCGTCCGCTGCGTCTGCACTGATGACCGTCTGAGCCCAGCTCAGCGTTCCTGGACAAACAGCCTCACTCC
TCAGCGTTACCGCCACACTTGAATTTCTCCGAATGTCAAGGTTCCCTCCCACTCTATTTTTTTAGGTTAAAGTTA
ATTGGCATATGGAATGTTTTAATCTCCTCTGAAATGTGTAGCGTAGGCTTTTCCCAAGGGTCGCTAGAAACTCGT
CTTCGCGTTGCCCCCTTTCTGGCTCTCAGCGCCGTCGCCACTCGGGAGAGGCTGGGTGAGGCCCGTGTGAGGACT
GACCCTGGATTCCTCGAAACTGCCATTGTGATCATTACTCTGCTCTTTGGTGGCTGTATCATTTTTTTGTACTAA
TGTGAATTGTTCCTCAGAAACGCTTCTTTTCCATCCTAGTGAGAAGCTGGCCCTGCAGGTGGTGGCAGCAATGGT
GTTGTAAGATTTCCTCCCGTAGTTTTTTCTCCTCATGGATTTGAATGAAATGCCAATAACACGTCCACTTTCAAC
GTGTAGTTTACGCGGAGCACTTTCGAGGCCTGGCCGGGTTGGGCCTACTTCTCACCTGGGCCTATCTTCTGAACT
CGCTAGGTTCTTATCAACATTTGGGGGATAACTTTGTATATTTTTTTCATTTGGCTTTTCTTTACCAGTTTCTGA
TTTTTATTCTCAATATATTTTTGCTAAACCTATTTCACAAATCACCACCGACTGAAGTGTGTGTTTACTGATGCG
GCCCTGAGCTCCATGGCGAAAGGAGTGACTTTGCAGGGCGTGAGACCGCAGTCTGCTTAGAGCACAGGAAGTGAC
AACTTAGGGAGCCCCGTAGGGCGCTGCAGGCCCCGGGGACCCCAGCACGTGGGTCTAAAGAGAGACGGAGTCTAG
CTCTCCTGCCACCCAGAGTGGCTTCCATCTCAGCACTCTGTGGGTCTGGTGATGGAAGATGCAGTCTCTGCTGAT
CACATGTGCCCTCTGCCAGGGCACCTACTGAGAGGTGCGGTCCTGGGGGTGGAGGCCTGCCTGGCAGGTGTGCGT
GCCTCGTACGTGTGTTATGGGCACTGGTCTAGGCCAGGTATGACACCCACTCTCCTGTGAGATTTCACTTTAGTT
TTTAAAAGGTCCAGTTCTACAGAGTGAGACCTATCTATCTGAGTACTACATATGTTTAAGACTTGGTTCTTTTT
TTGAGGGATCCTTGACCCTGGGAAGTCTGGAGCACCCTGAGAAGGGGGCACCATGTGTGCCTTTGCCCACGTGTC
CTGAGGGGCTGCTTGTCTGGGAGGGAGGGAGAGAACATTCAGCAGCAGGTGCTTTTTATGGCCTTTTCTTAAAA
TAACCTAAGGGGGACACATCCATCTTGCAGAGAAGTTTACAGAACTCCCCTTGAAAACTGCTGCTGAGGCTCCTG
TTAAATTTTCTGTGGCATCTTTTATGCCTTGGTAAAAACTGCAGTGTCTTTGGACCTGAGAGTGGCTACTCCGTG
GTTTTGTGACCTGTAAGCGTGGGGTTCAGGGGTGTGTGGCCCTGCAGGGTCCCACGCCTCCCTGAGCACTGACTG
GAAGTTTCACTGGCTGGTGGCTGTCCCTTCTCCCATCAGGGTCCCCAGCAAAGTTAACTACACAGAGGACCCAGG
GGAAACGAGCTGTGTAGCCACTGACTTGCTCGCGCGGCCGTGGCCTCTGAGGGGCACTCGCCGGTTAAGACAGGG
TGGGAGTAGTGCTTTCCAGTTCAGACTCTAACTTCTCCCAAAGTGTCCTAAGAAAATACTGGATCGGCTCATAGA
TTTATGCTCCTTATGATGCCCTAACTTGGAAGGTTGTTCTAGGGACAGGCCGGGCAGTGTCCCCACACACACCTT
AGAGTCGAAGGCCCCAGGGCCCCGCTGTCACTTGCCCAAAAGATCCCTTCCGGCAGGTAAGGGACTACCAATGCT
TACGTCAAAACAGCAGAATCGGCTTTGCAGTGCACTTTGGGGAGCAGATATTAACTTATTTTTGTGTTGGACAGT
AGTGAAATCTTGTGATTTTTAATCGCTTTGATAATACTTCCAAATTTTATGATTTTTCTGAAGGAAATAATGCAA
ACATTTTAAATATGTTTCTCCCCCTTTCCAAAAACTGTTAAACTAATGAGCAAGTAACACTAACTTTGAATGTCT

FIGURE 1366C

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CTACAATACCCGTTGATAACTCAGTGGAGCCAGGCTTTGGGGTAGCGGCCCTGAGCTTGCAGGGTTTCTCGCCAC
TGGGGCTGACCACGCCCCCAGCTGTGACCGTGGGTGTGGCTGGCTCTCGGCCCTGCCCAGCTTTGTTCTGAGGAC
GTGGTGACTTCCTGAACATCAGCTTCAATCCTCCATCATTAATGTGAAGCAAAACACAAAAACCGCCCCAATCCC
TCAGGATTCCTTGGCATCCGAAACCAGCATCTGCACCTAAACCCATACCCACCCGTGTGCGCCCACAGGGGGATG
TGTCCGAATGGGCAGCTTAAAATGTGGTCACCTGTGGGGGAAACTCTTCAGGCACCTGAAGTGAGAACCCAGCTG
TCCGTCCTCAGGCCGGCCTTTCTTCCGGCGACACCCGTCCATGGCTGGCTGGGTCCCCTTCGCAGTGTTTGTCTG
TCTTGACATCTAAACCCCGGCGTGTGCAGTGCCCATCTTCCAGGACTACCTTATTTTCCAGAATTAAACCTGTTT
TATAATTCAAGTTAATGCAAATGACTGTCAGTTGCCAAATATCTTGATCCTGTGAGTGTAGTTGATGACTGTTTG
TTAGTCAGTAGAGTAAAATGCTGTGTCCACGGGGTGTCACAGCCTCACCATACCCTGTTGAGGTGTGAAATGCCC
CGTCAGAAATTAAATACAAACTTAAATGTGCCTATTGGTGTCTAAACTTCATACAATGTAAGGTCAGATTCCTTT
TAGGAATACTGGGTGCTGTCACCAGGTTTGATAGTTAGACTTAÁAAACTTGAAATTCACTTTTGGGGGGAGGGA
TATACTGAAATAGAGAGTTGAGACTTGCCAGTTGGGGGAAAATAGCATTTAAAATGGAAAGCTGTGTTTGGAAAA
TTGTGTATGAGTATTTTTGTATTAAAAACATTTTAAA
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FIGURE 1367

MEFSIKQSPLSVQSVVKCIKMKQAPEILGSANGKTPSCEVNRECSVFLSKAQLSSSLQEGVMQKFNGHDALPFIP
ADKLKDLTSRVFNGEPGAHDAKLRFESQEMKGIGTPPNTTPIKNGSPEIKLKITKTYMNGKPLFESSICGDSAAD
VSQSEENGQKPENKARRNRKRSIKYDSLLEQGLVEAALVSKISSPSDKKIPAKKESCPNTGRDKDHLLKYNVGDL
VWSKVSGYPWWPCMVSADPLLHSYTKLKGQKKSARQYHVQFFGDAPERAWIFEKSLVAFEGEGQFEKLCQESAKQ
APTKAEKIKLLKPISGKLRAQWEMGIVQAEEAASMSVEERKAKFTFLYVGDQLHLNPQVAKEAGIAAESLGEMAE
SSGVSEEAAENPKSVREECIPMKRRRRAKLCSSAETLESHPDIGKSTPQKTAEADPRRGVGSPPGRKKTTVSMPR
SRKGDAASQFLVFCQKHRDEVVAEHPDASGEEIEELLRSQWSLLSEKQRARYNTKFALVAPVQAEEDSGNVNGKK
RNHTKRIQDPTEDAEAEDTPRKRLRTDKHSLRKRDTITDKTARTSSYKAMEAASSLKSQAATKNLSDACKPLKKR
NRASTAASSALGFSKSSSPSASLTENEVSDSPGDEPSESPYESADETQTEVSVSSKKSERGVTAKKEYVCQLCEK
PGSLLLCEGPCCGAFHLACLGLSRRPEGRFTCSECASGIHSCFVCKESKTDVKRCVVTQCGKFYHEACVKKYPLT
VFESRGFRCPLHSCVSCHASNPSNPRPSKGKMMRCVRCPVAYHSGDACLAAGCSVIASNSIICTAHFTARKGKRH
HAHVNVSWCFVCSKGGSLLCCESCPAAFHPDCLNIEMPDGSWFCNDCRAGKKLHFQDIIWVKLGNYRWWPAEVCH
PKNVPPNIQKMKHEIGEFPVFFFGSKDYYWTHQARVFPYMEGDRGSRYQGVRGIGRVFKNALQEAEARFREIKLQ
REARETQESERKPPPYKHIKVNKPYGKVQIYTADISEIPKCNCKPTDENPCGFDSECLNRMLMFECHPQVCPAGE
FCQNQCFTKRQYPETKIIKTDGKGWGLVAKRDIRKGEFVNEYVGELIDEEECMARIKHAHENDITHFYMLTIDKD
RIIDAGPKGNYSRFMNHSCQPNCETLKWTVNGDTRVGLFAVCDIPAGTELTFNYNLDCLGNEKTVCRCGASNCSG
FLGDRPKTSTTLSSEEKGKKTKKKTRRRRAKGEGKRQSEDECFRCGDGGQLVLCDRKFCTKAYHLSCLGLGKRPF
GKWECPWHHCDVCGKPSTSFCHLCPNSFCKEHQDGTAFSCTPDGRSYCCEHDLGAASVRSTKTEKPPPEPGKPKG
KRRRRRGWRRVTEGK

FIGURE 1368

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GGTCGTTCGTTGGGCGGTGCTGGTTTTTCGCTCGTCGACTGCGGCTCTTCCTCGGGCAGCGGAAGCGGCGCGGCG
GTCGGAGAAGTGGCCTAAAACTTCGGCGTTGGGTGAAAGAAAATGGCCCGAACCAAGCAGACTGCTCGTAAGTCC
ACCGGTGGGAAAGCCCCCCGCAAACAGCTGGCCACGAAAGCCGCCAGGAAAAGCGCTCCCTCTACCGGCGGGGTG
AAGAAGCCTCATCGCTACAGGCCCGGGACCGTGGCGCTTCGAGAGATTCGTCGTTATCAGAAGTCGACCGAGCTG
CTCATCCGGAAGCTGCCCTTCCAGAGGTTGGTGAGGGAGATCGCGCAGGATTTCAAAACCGACCTGAGGTTTCAG
AGCGCAGCCATCGGTGCGCTGCAGGAGGCTAGCGAAGCGTACCTGGTGGGTCTGTTCGAAGATACCAACCTGTGT
GCCATCCACGCTAAGAGAGTCACCATCATGCCCAAAGACATCCAGTTGGCTCGCCGGATACGGGGAGAGAGAGCT
TAAGTGAAGGCAGTTTTTATGGCGTTTTGTAGTAAATTCTGTAAAATACTTTGGTTTAATTTGTGACTTTTTTTG
TAAGAAATTGTTTATAATATGTTGCATTTGTACTTAAGTCATTCCATCTTTCACTCAGGATGAATGCGAAAAGTG
ACTGTTCACAGACCTCAGTGATGTGAGCACTGTTGCTCAGGAGTGACAAGTTGCTAATATGCAGAAGGGATGGGT
GATACTTCTTGCTTCTCATGATGCATGTTTCTGTATGTTAATGACTTGTTGGGTAGCTATTAAGGTACTAGAGTT
GATAAATGTGTACAGGGTCCTTTTGCAATAAAACTGGTTATGACTTGATCCAAGTGTTTAACAATTGGGGCTGTT
AAGTCTGACCATACATCACTGTGATAGAATGTGGGCTTTTTCAAGGGTGAAGATACAAGTCTTAACCACAGTGTA
ACTTACAGTTTCCTTTAAAAAAAAAAAAAGTAAACCTGGCAGCTATAGAATACACTATGTGCATTTATAATAGCT
ATTTTATATATTGTAGTATCAACATTTTTAAATTAAATGTTTTACATTCACAAGTGGTGGGGAGTCTTGTCATTA
AGGTGTGTGTAATTTAGAGTCCAGTTGGTTTTCTTCTGACTGCACTTGTTCTCATAGTAGTAAAATGCTATGCGC
ATTTATACCTTGCATAAGTCCTCATTCTACCACATGTTAACCCTCTAGCTGATAATGCAAACACTAACTGGGGGA
TTTTATTTATAAGGGCTCTAGAAAAAACGAGTTATTCACACCAGCATCATCTTAACTAACATTCTGAACTAGTTA
GTGCAGCTTTTCATTGTGTTGTGTGGTTGGTCTCATAACTAGGTTGAGTTTTTCTCCTCTGCTGAGGAAACAGTA
CCGAAGTTCTTTTTCTTGTGGCATTTGTATTATAAAAACTTGGTGTGGGGGAGGAGCACAAAACTCCAGCCCACT
GAACCTCTGCCAATTAAGATGGTGTTGGGTTAGGTTACATCTGGTTACTGTCCTGGGAAATCATTTTTATAGAG
ATGGCCTTCCAAGTGGTTTTAAAATTTACTGAAGTTTTTAGGTCAATTATGTATGTTGACTAAATTTACAAATAA
ACTTGTTTATCC
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1540/2825
FIGURE 1369

MARTKQTARKSTGGKAPRKQLATKAARKSAPSTGGVKKPHRYRPGTVALREIRRYQKSTELLIRKLPFQRLVREI
AQDFKTDLRFQSAAIGALQEASEAYLVGLFEDTNLCAIHAKRVTIMPKDIQLARRIRGERA

FIGURE 1370

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GAGCATGGAGGCGGGGGCGGCTGAGGCAGCTGTAGCGGCCGTGGAGGAGGTCGGCTCAGCCGGGCAGTTTGAGGA
GCTGCTGCGCCTCAAAGCCAAGTCCCTCCTTGTGGTCCATTTCTGGGCACCATGGGCTCCACAGTGTGCACAGAT
GAACGAAGTTATGGCAGAGTTAGCTAAAGAACTCCCTCAAGTTTCATTTGTGAAGTTGGAAGCTGAAGGTGTTCC
TGAAGTATCTGAAAAATATGAAATTAGCTCTGTTCCCACTTTTCTGTTTTTCAAGAATTCTCAGAAAATCGACCG
ATTAGATGGTGCACATGCCCCAGAGTTGACCAAAAAAGTTCAGCGACATGCATCTAGTGGCTCCTTCCTACCCAG
CGCTAATGAACATCTTAAAGAAGATCTCAACCTTCGCTTGAAGAAATTGACTCATGCTGCCCCCTGCATGCTGTT
TATGAAAGGAACTCCTCAAGAACCACGCTGTGGTTTCAGCAAGCAGATGGTGGAAATTCTTCACAAACATAATAT
TCAGTTTAGCAGTTTTGATATCTTCTCAGATGAAGAGGTTCGACAGGGACTCAAAGCCTATTCCAGTTGGCCTAC
CTATCCTCAGCTCTATGTTTCTGGAGAGCTCATAGGAGGACTTGATATAATTAAGGAGCTAGAAGCATCTGAAGA
ACTAGATACAATTTGTCCCAAAGCTCCCAAATTAGAGGAAAGGCTCAAAGTGCTGACAAATAAAGCTTCTGTGAT
GCTCTTTATGAAAGGAAACAAACAGGAAGCAAAATGTGGATTCAGCAAACAAATTCTGGAAATACTAAATAGTAC
TGGTGTTGAATATGAAACATTCGATATATTGGAGGATGAAGAAGTTCGGCAAGGATTAAAAGCTTACTCAAATTG
GCCAACATACCCTCAGCTGTATGTGAAAGGGGAGCTGGTGGGAGGATTGGATATTGTGAAGGAACTGAAAGAAAA
TGGTGAATTGCTGCCTATACTGAGAGGAGAAAATTAATAAATCTTAAACTTGGTGCCCAACTATTACGGGGTCTG
GCTCTGTCACCCAGGCTGGAGTGCAGTGGCACGATTATGGCTCATTGCAGCCTCGACTTCTCGGGGCCAAGCGAT
CCTCCTGCCTCAGCCTTCTGAGTAGCTGGGACCACAGGCGTGCACCACCATGCCCACCTAATTTTTTATTTCTTG
TAGAGATGAGGTCTCCTGCCTCAGCCTCCCAAAGTGCTGGAATTACAGGAGTGTCGGCTGTGCCCCTTGTGATG
GATGAGGAAAGGTATCCACCTTTCTGAATCAGACACAAGCTGCAGTAGCTTCCTGATGCCTCATTCACCAGGATG
GGTAACTTTAAAGACAAGTTTTATAACTGGCATCCCATCTGGTTTCAGAGTCTTGGGGGCTTTTTTCATACAGCT
TTGTCTGATATTTAGAGACATTCAGATTCAGAAGCCATGAGTTCAGTTAGCTCATGGGCCGGGCACGTGCACTGA
CTCACTGGCTGCAGCAGAACACATTGAGGGAGTCTTGGTGCACTTAGGTCACTGTAAGGTTCTAGGGCTGGGAGC
TGGGATTTGAACCAGGATCTGTCAGCGCAGCCCCAGTGCTGTGCTTGAAGCCTCGTGCCACACTGGCTTTGAGGT
AGCACGCTGCAAGTTAGTGAGTGGAGTTGCCCAAGTCTGGGGCTTCTGAAATGACCTGGTATTTTTATGTTCCTG
TTAGAAATGGTGTGGCTTTCACAAATTAAGTGCCAGGCTGGGCACAATGGCTCGTGCTTGTAATCCCAGCACTTT
GGGAGGCGGAGGCAGGCGGGTTGCTTGAGCTCCGGAGCTTGAGACCAGCCTGAGCAACATGGCGAAACCTCATAT
CTACAAAAAATAAAAAATTAACTGGTCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
```

FIGURE 1371

MEAGAAEAAVAAVEEVGSAGQFEELLRLKAKSLLVVHFWAPWAPQCAQMNEVMAELAKELPQVSFVKLEAEGVPE
VSEKYEISSVPTFLFFKNSQKIDRLDGAHAPELTKKVQRHASSGSFLPSANEHLKEDLNLRLKKLTHAAPCMLFM
KGTPQEPRCGFSKQMVEILHKHNIQFSSFDIFSDEEVRQGLKAYSSWPTYPQLYVSGELIGGLDIIKELEASEEL
DTICPKAPKLEERLKVLTNKASVMLFMKGNKQEAKCGFSKQILEILNSTGVEYETFDILEDEEVRQGLKAYSNWP
TYPQLYVKGELVGGLDIVKELKENGELLPILRGEN

FIGURE 1372

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TCAGCGGGCGAGTCCCCGGCTCCTCCAGCTCCTTCCTCCTCTTCCTCCTCCTCCTCCACCTCCGGCTTTTGGGGG
ATCACTGTCCTCTCTCGGCAGCAGAATGAGCCGGCAGGTGGTCCGCTCCAGCAAGTTCCGCCACGTGTTTGGACA
GCCGGCCAAGGCCGACCAGTGCTATGAAGATGTGCGCGTCTCACAGACCACCTGGGACAGTGGCTTCTGTGCTGT
CAACCCTAAGTTTGTGGCCCTGATCTGTGAGGCCAGCGGGGGAGGGGCCTTCCTGGTGCTGCCCCTGGGCAAGAC
TGGACGTGTGGACAAGAATGCGCCCACGGTCTGTGGCCACACAGCCCCTGTGCTAGACATCGCCTGGTGCCCGCA
CAATGACAACGTCATTGCCAGTGGCTCCGAGGACTGCACAGTCATGGTGTGGGAGATCCCGGATGGGGGCCTGAT
GCTGCCCCTGCGGGAGCCCGTCGTCACCCTGGAGGGCCACACCAAGCGTGTGGGCATTGTGGCCTGGCACACCAC
AGCCCAGAACGTGCTGCTCAGTGCAGGTTGTGACAACGTGATCATGGTGTGGGACGTGGGCACTGGGGCGGCCAT
GCTGACACTGGGCCCAGAGGTGCACCCAGACACGATCTACAGTGTGGACTGGAGCCGAGATGGAGGCCTCATTTG
TACCTCCTGCCGTGACAAGCGCGTGCGCATCATCGAGCCCCGCAAAGGCACTGTCGTAGCTGAGAAGGACCGTCC
CCACGAGGGGACCCGGCCCGTGCGTGCAGTGTTCGTGTCGGAGGGGAAGATCCTGACCACGGGCTTCAGCCGCAT
GAGTGAGCGGCAGGTGGCGCTGTGGGACACAAAGCACCTGGAGGAGCCGCTGTCCCTGCAGGAGCTGGACACCAG
CAGCGGTGTCCTGCTGCCCTTCTTTGACCCTGACACCAACATCGTCTACCTCTGTGGCAAGGGTGACAGCTCAAT
CCGGTACTTTGAGATCACTTCCGAGGCCCCTTTCCTGCACTATCTCTCCATGTTCAGTTCCAAGGAGTCCCAGCG
GGGCATGGGCTACATGCCCAAACGTGGCCTGGAGGTGAACAAGTGTGAGATCGCCAGGTTCTACAAGCTGCACGA
GCGGAGGTGTGAGCCCATTGCCATGACAGTGCCTCGAAAGTCGGACCTGTTCCAGGAGGACCTGTACCCACCCAC
CGCAGGGCCCGACCCTGCCCTCACGGCTGAGGAGTGGCTGGGGGGTCGGGATGCTGGGCCCCTCCTCATCTCCCT
CAAGGATGGCTACGTACCCCCAAAGAGCCGGGAGCTGAGGGTCAACCGGGGCCTGGACACCGGGCGCAGGAGGGC
AGCACCAGAGGCCAGTGGCACTCCCAGCTCGGATGCCGTGTCTCGGCTGGAGGAGGAGATGCGGAAGCTCCAGGC
CACGGTGCAGGAGCTCCAGAAGCGCTTGGACAGGCTGGAGGAGACAGTCCAGGCCAAGTAGAGCCCCGCAGGGCC
TCCAGCAGGGTCAGCCATTCACACCCATCCACTCACCTCCCATTCCCAGCCACATGGCAGAGAAAAAAATCATAA
TAAAATGGCTTTATTTTCTGGTAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAGG
GGGGGGGGA
```

FIGURE 1373

MSRQVVRSSKFRHVFGQPAKADQCYEDVRVSQTTWDSGFCAVNPKFVALICEASGGGAFLVLPLGKTGRVDKNAP
TVCGHTAPVLDIAWCPHNDNVIASGSEDCTVMVWEIPDGGLMLPLREPVVTLEGHTKRVGIVAWHTTAQNVLLSA
GCDNVIMVWDVGTGAAMLTLGPEVHPDTIYSVDWSRDGGLICTSCRDKRVRIIEPRKGTVVAEKDRPHEGTRPVR
AVFVSEGKILTTGFSRMSERQVALWDTKHLEEPLSLQELDTSSGVLLPFFDPDTNIVYLCGKGDSSIRYFEITSE
APFLHYLSMFSSKESQRGMGYMPKRGLEVNKCEIARFYKLHERRCEPIAMTVPRKSDLFQEDLYPPTAGPDPALT
AEEWLGGRDAGPLLISLKDGYVPPKSRELRVNRGLDTGRRAAPEASGTPSSDAVSRLEEEMRKLQATVQELQKR
LDRLEETVQAK

FIGURE 1374

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GCTAACCTAGTGCCTATAGCTAAGGCAGGTACCTGCATCCTTGTTTTTGTTTAGTGGATCCTCTATCCTTCAGAG
ACTCTGGAACCCCTGTGGTCTTCTCTTCATCTAATGACCCTGAGGGGATGGAGTTTTCAAGTCCTTCCAGAGAGG
AATGTCCCAAGCCTTTGAGTAGGGTAAGCATCATGGCTGGCAGCCTCACAGGTTTGCTTCTACTTCAGGCAGTGT
CGTGGGCATCAGGTGCCCGCCCCTGCATCCCTAAAAGCTTCGGCTACAGCTCGGTGGTGTGTGTCTGCAATGCCA
CATACTGTGACTCCTTTGACCCCCCGACCTTTCCTGCCCTTGGTACCTTCAGCCGCTATGAGAGTACACGCAGTG
GGCGACGGATGGAGCTGAGTATGGGGCCCATCCAGGCTAATCACACGGGCACAGGCCTGCTACTGACCCTGCAGC
CAGAACAGAAGTTCCAGAAAGTGAAGGGATTTGGAGGGGCCATGACAGATGCTGCTGCTCTCAACATCCTTGCCC
TGTCACCCCCTGCCCAAAATTTGCTACTTAAATCGTACTTCTCTGAAGAAGGAATCGGATATAACATCATCCGGG
TACCCATGGCCAGCTGTGACTTCTCCATCCGCACCTACACCTATGCAGACACCCCTGATGATTTCCAGTTGCACA
ACTTCAGCCTCCCAGAGGAAGATACCAAGCTCAAGATACCCCTGATTCACCGAGCCCTGCAGTTGGCCCAGCGTC
CCGTTTCACTCCTTGCCAGCCCCTGGACATCACCCACTTGGCTCAAGACCAATGGAGCGGTGAATGGGAAGGGGT
CACTCAAGGGACAGCCCGGAGACATCTACCACCAGACCTGGGCCAGATACTTTGTGAAGTTCCTGGATGCCTATG
CTGAGCACAAGTTACAGTTCTGGGCAGTGACAGCTGAAAATGAGCCTTCTGCTGGGCTGTTGAGTGGATACCCCT
TCCAGTGCCTGGGCTTCACCCCTGAACATCAGCGAGACTTCATTGCCCGTGACCTAGGTCCTACCCTCGCCAACA
GTACTCACCACAATGTCCGCCTACTCATGCTGGATGACCAACGCTTGCTGCTGCCCCACTGGGCAAAGGTGGTAC
TGACAGACCCAGAAGCAGCTAAATATGTTCATGGCATTGCTGTACATTGGTACCTGGACTTTCTGGCTCCAGCCA
AAGCCACCCTAGGGGAGACACACCGCCTGTTCCCCAACACCATGCTCTTTGCCTCAGAGGCCTGTGTGGGCTCCA
AGTTCTGGGAGCAGAGTGTGCGGCTAGGCTCCTGGGATCGAGGGATGCAGTACAGCCACAGCATCATCACGAACC
TCCTGTACCATGTGGTCGGCTGGACCGACTGGAACCTTGCCCTGAACCCCGAAGGAGGACCCAATTGGGTGCGTA
ACTTTGTCGACAGTCCCATCATTGTAGACATCACCAAGGACACGTTTTACAAACAGCCCATGTTCTACCACCTTG
GCCACTTCAGCAAGTTCATTCCTGAGGGCTCCCAGAGAGTGGGGCTGGTTGCCAGTCAGAAGAACGACCTGGACG
CAGTGGCACTGATGCATCCCGATGGCTCTGCTGTTGTGGTCGTGCTAAACCGCTCCTCTAAGGATGTGCCTCTTA
CCATCAAGGATCCTGCTGTGGGCTTCCTGGAGACAATCTCACCTGGCTACTCCATTCACACCTACCTGTGGCATC
GCCAGTGATGGAGCAGATACTCAAGGAGGCACTGGGCTCAGCCTGGGCATTAAAGGGACAGAGTCAGCTCACACG
CTGTCTGTGACTAAAGAGGGCACAGCAGGGCCAGTGTGAGCTTACAGCGACGTAAGCCCAGGGGCAATGGTTTGG
GTGACTCACTTTCCCCTCTAGGTGGTGCCCAGGGCTGGAGGCCCCTAGAAAAAGATCAGTAAGCCCCAGTGTCCC
CCCAGCCCCCATGCTTATGTGAACATGCGCTGTGTGCTGCTTGCTTTGGAAACTXGCCTGGGTCCAGGCCTAGGG
TGAGCTCACTGTCCGTACAAACACAAGATCAGGGCTGAGGGTAAGGAAAAGAAGAGACTAGGAAAGCTGGGCCCA
AAACTGGAGACTGTTTGTCTTTCCTAGAGATGCAGAACTGGGCCCGTGGAGCAGCAGTGTCAGCATCAGGGCGGA
AGCCTTAAAGCAGCAGCGGGTGTGCCCAGGCACCCAGATGATTCCTATGGCACCAGCCAGGAAAAATGGCAGCTC
TTAAAGGAGAAAATGTTTGAGCCCA
```

FIGURE 1375

MEFSSPSREECPKPLSRVSIMAGSLTGLLLLQAVSWASGARPCIPKSFGYSSVVCVCNATYCDSFDPPTFPALGT
FSRYESTRSGRRMELSMGPIQANHTGTGLLLTLQPEQKFQKVKGFGGAMTDAAALNILALSPPAQNLLLKSYFSE
EGIGYNIIRVPMASCDFSIRTYTYADTPDDFQLHNFSLPEEDTKLKIPLIHRALQLAQRPVSLLASPWTSPTWLK
TNGAVNGKGSLKGQPGDIYHQTWARYFVKFLDAYAEHKLQFWAVTAENEPSAGLLSGYPFQCLGFTPEHQRDFIA
RDLGPTLANSTHHNVRLLMLDDQRLLLPHWAKVVLTDPEAAKYVHGIAVHWYLDFLAPAKATLGETHRLFPNTML
FASEACVGSKFWEQSVRLGSWDRGMQYSHSIITNLLYHVVGWTDWNLALNPEGGPNWVRNFVDSPIIVDITKDTF
YKQPMFYHLGHFSKFIPEGSQRVGLVASQKNDLDAVALMHPDGSAVVVVLNRSSKDVPLTIKDPAVGFLETISPG
YSIHTYLWHRQ

FIGURE 1376

GCGCAGGGAGGGGAGACCTTGGCGGACGGCGGAGCCCCAGCGGAGGTGAAAGTATTGGCGGAAAGGAAAATACAG
CGGAAAA**ATG**CAGAGCTGGAGTCGTGTGTACTGCTCCTTGGCCAAGAGAGGCCATTTCAATCGAATATCTCATGG
CCTACAGGGACTTTCTGCAGTGCCTCTGAGAACTTACGCAGATCAGCCGATTGATGCTGATGTAACAGTTATAGG
TTCTGGTCCTGGAGGATATGTTGCTGCTATTAAAGCTGCCCAGTTAGGCTTCAAGACAGTCTGCATTGAGAAAAA
TGAAACACTTGGTGGAACATGCTTGAATGTTGGTTGTATTCCTTCTAAGGCTTTATTGAACAACTCTCATTATTA
CCATATGGCCCATGGAACAGATTTTGCATCTAGAGGAATTGAAATGTCCGAAGTTCGCTTGAATTTAGACAAGAT
GATGGAGCAGAAGAGTACTGCAGTAAAAGCTTTAACAGGTGGAATTGCCCACTTATTCAAACAGAATAAGGTTGT
TCATGTCAATGGATATGGAAAGATAACTGGCAAAAATCAAGTCACTGCTACGAAAGCTGATGGCGGCACTCAGGT
TATTGATACAAAGAACATTCTTATAGCCACGGGTTCAGAAGTTACTCCTTTTCCTGGAATCACGATAGATGAAGA
TACAATAGTGTCATCTACAGGTGCTTTATCTTTAAAAAAAGTTCCAGAAAAGATGGTTGTTATTGGTGCAGGAGT
AATAGGTGTAGAATTGGGTTCAGTTTGGCAAAGACTTGGTGCAGATGTGACAGCAGTTGAATTTTTAGGTCATGT
AGGTGGAGTTGGAATTGATATGGAGATATCTAAAAACTTTCAACGCATCCTTCAAAAACAGGGGTTTAAATTTAA
ATTGAATACAAAGGTTACTGGTGCTACCAAGAAGTCAGATGGAAAAATTGATGTTTCTATTGAAGCTGCTTCTGG
TGGTAAAGCTGAAGTTATCACTTGTGATGTACTCTTGGTTTGCATTGGCCGACGACCCTTTACTAAGAATTTGGG
ACTAGAAGAGCTGGGAATTGAACTAGATCCTAGAGGTAGAATTCCAGTCAATACCAGATTTCAAACTAAAATTCC
AAATATCTATGCCATTGGTGATGTAGTTGCTGGTCCAATGCTGGCTCACAAAGCAGAGGATGAAGGCATTATCTG
TGTTGAAGGAATGGCTGGTGGTGCTGTGCACATTGACTACAATTGTGTGCCATCAGTGATTTACACACACCCTGA
AGTTGCTTGGGTTGGCAAATCAGAAGAGCAGTTGAAAGAAGAGGGTATTGAGTACAAAGTTGGGAAATTCCCATT
TGCTGCTAACAGCAGAGCTAAGACAAATGCTGACACAGATGGCATGGTGAAGATCCTTGGGCAGAAATCGACAGA
CAGAGTACTGGGAGCACATATTCTTGGACCAGGTGCTGGAGAAATGGTAAATGAAGCTGCTCTTGCTTTGGAATA
TGGAGCATCCTGTGAAGATATAGCTAGAGTCTGTCATGCACATCCGACCTTATCAGAAGCTTTTAGAGAAGCAAA
TCTTGCTGCGTCATTTGGCAAATCAATCAACTTT**TGA**ATTAGAAGATTATATATTTTTTTTCTGAAATTTCCTG
GGAGCTTTTGTAGAAGTCACATTCCTGAACAGGATATTCTCACAGCTCCAAGAATTTCTAGGACTGAATTATGAA
ACTTTTGGAAGGTATTTAATAGGTTTGGACAAAATGGAATACTCTTATATCTATATTTTACATAAATTTAGTATT
TTGTTTCAGTGCACTAATATGTAAGACAAAAAGGACTACTTATTGTAGTCATCCTGGAATATCTCCGTCAACTCA
TATTTCATGCTGTTCATGAAAGATTCAATGCCCCTGAATTTAAATAGCTCTTTTCTCTGATACAGAAAAGTTGA
ATTTTACATGGCTGGAGCTAGAATTTGATATGTGAACAGTTGTGTTTGAAGCACAGTGATCAAGTTATTTTTAAT
TTGGTTTTCACATTGGAAACAAGTCAGTCATTCAGATATGATTCAAATGTCTATAAACCAAACTGATGTAAGTAA
ATGGTCTCTCACTTGTTTTATTTAACCTCTAAATTCTTTCATTTTAGGGGTAGCATTTGTGTTGAAGAGGTTTTA
AAGCTTCCATTGTTGTCTGCAACTCTGAAGGGTAATTATATAGTTACCCAAATTAAGAGAGTCTATTTACGGAAC
TCAAATACGTGGGCATTCAAATGTATTACAGTGGGGAATGAAGATACTGAAATAAACGTCTTAAATATTC

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FIGURE 1377

MQSWSRVYCSLAKRGHFNRISHGLQGLSAVPLRTYADQPIDADVTVIGSGPGGYVAAIKAAQLGFKTVCIEKNET
LGGTCLNVGCIPSKALLNNSHYYHMAHGTDFASRGIEMSEVRLNLDKMMEQKSTAVKALTGGIAHLFKQNKVVHV
NGYGKITGKNQVTATKADGGTQVIDTKNILIATGSEVTPFPGITIDEDTIVSSTGALSLKKVPEKMVVIGAGVIG
VELGSVWQRLGADVTAVEFLGHVGGVGIDMEISKNFQRILQKQGFKFKLNTKVTGATKKSDGKIDVSIEAASGGK
AEVITCDVLLVCIGRRPFTKNLGLEELGIELDPRGRIPVNTRFQTKIPNIYAIGDVVAGPMLAHKAEDEGIICVE
GMAGGAVHIDYNCVPSVIYTHPEVAWVGKSEEQLKEEGIEYKVGKFPFAANSRAKTNADTDGMVKILGQKSTDRV
LGAHILGPGAGEMVNEAALALEYGASCEDIARVCHAHPTLSEAFREANLAASFGKSINF

FIGURE 1378

ATGGCATCCGTTGCAGTTGATCCACAACCGAGTGTGGTGACTCGGGTGGTCAACCTGCCCTTGGTGAGCTCCACG
TATGACCTCATGTCCTCAGCCTATCTCAGTACAAAGGACCAGTATCCCTACCTGAAGTCTGTGTGTGAGATGGCA
GAGAACGGTGTGAAGACCATCACCTCCGTGGCCATGACCAGTGCTCTGCCCATCATCCAGAAGCTAGAGCCGCAA
ATTGCAGTTGCCAATACCTATGCCTGTAAGGGGCTAGACAGGATTGAGGAGAGACTGCCTATTCTGAATCAGCCA
TCAACTCAGATTGTTGCCAATGCCAAAGGCGCTGTGACTGGGGCAAAAGATGCTGTGACGACTACTGTGACTGGG
GCCAAGGATTCTGTGGCCAGCACGATCACAGGGGTGATGGACAAGACCAAAGGGGCAGTGACTGGCAGTGTGGAG
AAGACCAAGTCTGTGGTCAGTGGCAGCATTAACACAGTCTTGGGGAGTCGGATGATGCAGCTCGTGAGCAGTGGC
GTAGAAAATGCACTCACCAAATCAGAGCTGTTGGTAGAACAGTACCTCCCTCTCACTGAGGAAGAACTAGAAAAA
GAAGCAAAAAAAGTTGAAGGATTTGATCTGGTTCAGAAGCCAAGTTATTATGTTAGACTGGGATCCCTGTCTACC
AAGCTTCACTCCCGTGCCTACCAGCAGGCTCTCAGCAGGGTTAAAGAAGCTAAGCAAAAAAGCCAACAGACCATT
TCTCAGCTCCATTCTACTGTTCACCTGATTGAATTTGCCAGGAAGAATGTGTATAGTGCCAATCAGAAAATTCAG
GATGCTCAGGATAAGCTCTACCTCTCATGGGTAGAGTGGAAAAGGAGCATTGGATATGATGATACTGATGAGTCC
CACTGTGCTGAGCAATTTGAGTCACGTACTCTTGCAATTGCCCGCAACCTGACTCAGCAGCTCCAGACCACGTGC
CACACCCTCCTGTCCAACATCCAAGGTGTACCACAGAACATCCAAGATCAAGCCAAGCACATGGGGGTGATGGCA
GGCGACATCTACTCAGTGTTCCGCAATGCTGCCTCCTTTAAAGAAGTGTCTGACAGCCTCCTCACTTCTAGCAAG
GGGCAGCTGCAGAAAATGAAGGAATCTTTAGATGACGTGATGGATTATCTTGTTAACAACACGCCCCTCAACTGG
CTGGTAGGTCCCTTTTATCCTCAGCTGACTGAGTCTCAGAATGCTCAGGACCAAGGTGCAGAGATGGACAAGAGC
AGCCAGGAGACCCAGCGATCTGAGCATAAAACTCAT**TAA**

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FIGURE 1379

MASVAVDPQPSVVTRVVNLPLVSSTYDLMSSAYLSTKDQYPYLKSVCEMAENGVKTITSVAMTSALPIIQKLEPQ
IAVANTYACKGLDRIEERLPILNQPSTQIVANAKGAVTGAKDAVTTTVTGAKDSVASTITGVMDKTKGAVTGSVE
KTKSVVSGSINTVLGSRMMQLVSSGVENALTKSELLVEQYLPLTEEELEKEAKKVEGFDLVQKPSYYVRLGSLST
KLHSRAYQQALSRVKEAKQKSQQTISQLHSTVHLIEFARKNVYSANQKIQDAQDKLYLSWVEWKRSIGYDDTDES
HCAEQFESRTLAIARNLTQQLQTTCHTLLSNIQGVPQNIQDQAKHMGVMAGDIYSVFRNAASFKEVSDSLLTSSK
GQLQKMKESLDDVMDYLVNNTPLNWLVGPFYPQLTESQNAQDQGAEMDKSSQETQRSEHKTH

FIGURE 1380

GGCACGAGGGGGAGCCGGGCTGGCAGGAGCAGG**ATG**GCGGCGGCGGCGGCTGCAGGCGAGGCGCGCCGGGTGCTG
GTGTACGGCGGCAGGGGCGCTCTGGGTTCTCGATGCGTGCAGGCTTTTCGGGCCCGCAACTGGTGGGTTGCCAGC
GTTGATGTGGTGGAGAATGAAGAGGCCAGCGCTAGCATCATTGTTAAAATGACAGACTCGTTCACTGAGCAGGCT
GACCAGGTGACTGCTGAGGTTGGAAAGCTCTTGGGTGAAGAGAAGGTGGATGCAATTCTTTGCGTTGCTGGAGGA
TGGGCCGGGGGCAATGCCAAATCCAAGTCTCTCTTTAAGAACTGTGACCTGATGTGGAAGCAGAGCATATGGACA
TCGACCATCTCCAGCCATCTGGCTACCAAGCATCTCAAGGAAGGAGGCCTCCTGACCTTGGCTGGCGCAAAGGCT
GCCCTGGATGGGACTCCTGGTATGATCGGGTACGGCATGGCCAAGGGTGCTGTTCACCAGCTCTGCCAGAGCCTG
GCTGGGAAGAACAGCGGCATGCCGCCCGGGGCAGCCGCCATCGCTGTGCTCCCGGTTACCCTGGATACCCCGATG
AACAGGAAATCAATGCCTGAGGCTGACTTCAGCTCCTGGACACCCTTAGAATTCCTAGTTGAAACTTTCCATGAC
TGGATCACAGGGAAAAACCGACCGAGCTCAGGAAGCCTAATCCAGGTGGTAACCACAGAAGGAAGGACGGAACTC
ACCCCAGCATATTTT**TAG**GCCTCATCTCAGTGCCTATGAGGGGCCTGCCAGAAAAGTCACTAACCTGTCTCAGTG
TGGCCTTGTCCAGCCTTGTGTTTTCTGTAACCCCTGTTTGTGGTACGAGATAATGAGTCCTATTTTTCTCTCACA
TAATATGCATTTGCTCTCCTAGGACAGTGTAATACATTTATGTGAAGTAAAGACATGCGAGACTGGTGGCCTGCA
AATAGCATCCGTCAATCTGTGTTAACTGCATAGGGAGGGCTCTGCATAGCACCTGCTATAGCGGTGTCATGTTGG
ATCGCTTTTGTGACTGTTCATCTGTCCTTGACAGTGGCTGTCATCTTGACTACTTTGTTGATTTGTTGGTATTGG
GGACATTTTAAAGGCTGAGTTATTTTTGAATGTCATGTTTATGTCATAGACGTAGTTTTCGCATCCTTGAATTAA
ACTGCCTTAACTCCTTTTGTGGTATAAGCAAAACTCCATGGACTCTGTCCTGGTATCCTTTTCCTGTGTGGTTGC
CCTGTGTCCTCTGGCCTAGGGTTAAGTGTGCAAGATAACTACTCGTGAGTATTCAGAATGTTGTTCCTAATAAAT
GCACTTGTTGTCTGTCTTCTTTAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 1381

MAAAAAAGEARRVLVYGGRGALGSRCVQAFRARNWWVASVDVVENEEASASIIVKMTDSFTEQADQVTAEVGKLL
GEEKVDAILCVAGGWAGGNAKSKSLFKNCDLMWKQSIWTSTISSHLATKHLKEGGLLTLAGAKAALDGTPGMIGY
GMAKGAVHQLCQSLAGKNSGMPPGAAAIAVLPVTLDTPMNRKSMPEADFSSWTPLEFLVETFHDWITGKNRPSSG
SLIQVVTTEGRTELTPAYF

FIGURE 1382

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CGCCCGGGCAGGTCCCAAAATTAGGGGGGGAAGAGGAAAAAAAAAAAGCCAGAAAAAGTTTTCTTTTCTGGAGTCCC
AAACGAGGTGCGGGACGGAAGAGGGGGTGAAGGCCAGAGGCTCGGGGCTTCAAGACCGCTGTCTGGAGTCCCCCT
TTCCAGGCCATGTCGGGGCCCACCTGGCTGCCCCCGAAGCAGCCGGAGCCCGCCAGAGCCCCTCAGGGGAGGGCG
ATCCCCCGCGGCACCCCGGGGCCACCACCGGCCCACGGAGCAGCACTCCAGCCCCACCCCAGGGTCAATTTTTGC
CCCCTTCCATCTGAGCAGTGTTACCAGGCCCCAGGGGGACCGGAGGATCGGGGGCCGGCGTGGGTGGGGTCCCAT
GGAGTACTCCAGCACACGCAGGGGCTCCCTGCAGACAGGGGGGGCCTTCGCCCTGGAAGCCTGGACGCCGAGATA
GACTTGCTGAGCACCACGCTGGCCAAACTGAATGGGGGTCGGGGTCATGCGTCACGGCGACCAGACCGACAGGCA
TATGAGCCCCGCCACCTCCTGCCTACCGCACGGGCTCCCTGAAGCCAAATCCAGCCTCGCCGCTCCCAGCGTCT
CCCTATGGGGGCCCCACTCCAGCCTCTTACACTACCGCCAGCACCCCGGCTGGCCCAGCCTTCCCCGTGCAAGTG
AAGGTGGCACAGCCAGTGAGGGGCTGCGGCCCACCCAGGCGGGGAGCCTCTCAGGCTTCTGGGCCCCTCCCGGGC
CCCCACTTTCCTCTCCCAGGCCGAGGTGAAGTCTGGGGGCCTGGCTATAGGAGCCAGAGAGAGCCAGGGCCAGGG
GCCAAAGAGGAAGCTGCTGGGGTCTCTGGCCCTGCAGGAAGAGGAAGAGGAGGCGAGCACGGGCCCCAGGTGCCC
CTGAGCCAGCCTCCAGAGGATGAGCTGGATAGGCTGACGAAGAAGCTGGTTCACGACATGAACCACCCGCCCAGC
GGGGAGTACTTTGGCCAGTGTGGTGGCTGCGGAGAAGATGTGGTTGGGGATGGGGCTGGGGTTGTGGCCCTTGAT
CGCGTCTTTCACGTGGGCTGCTTTGTATGTTCTACATGCCGGGCCCAGCTTCGCGGCCAGCATTTCTACGCCGTG
GAGAGGAGGGCATATTGCGAGGGCTGCTACGTGGCCACCCTGGAGAAATGTGCCACGTGCTCCCAGCCCATCCTG
GACCGGATCCTGCGGGCTATGGGGAAGGCCTACCACCCTGGCTGCTTCACCTGCGTGGTGTGTCACCGCGGCCTC
GACGGCATCCCCTTCACAGTGGATGCTACGAGCCAGATCCACTGTATTGAGGACTTTCACAGGAAGTTTGCCCCA
AGATGCTCAGTGTGCGGTGGGGCCATAATGCCTGAGCCAGGTCAGGAGGAGACTGTGAGAATTGTTGCTCTGGAT
CGAAGTTTTCACATTGGCTGTTACAAGTGCGAGGAGTGTGGGCTGCTGCTCTCCTCTGAGGGCGAGTGTCAGGGC
TGCTACCCGCTGGATGGGCACATCTTGTGCAAGGCCTGCAGCGCCTGGCGCATCCAGGAGCTCTCAGCCACCGTC
ACCACTGACTGCTGAGTCTTCCTAGAAGTACCTGCTGGGTTCTCAGTTCCAGTTCCCATCCTTTGATTGATCACT
CTCCCTGACATCCACCTGTATGACTTTGTCACCAAATGCTGTCTTCTCTTTCTCCAATCAAGAAATAATAATCCC
TCGAGTTTACAAAAAAAAAAAAAAAAAAAAA
```

FIGURE 1383

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MSGPTWLPPKQPEPARAPQGRAIPRGTPGPPPAHGAALQPHPRVNFCPLPSEQCYQAPGGPEDRGPAWVGSHGVL
QHTQGLPADRGGLRPGSLDAEIDLLSTTLAKLNGGRGHASRRPDRQAYEPPPPPAYRTGSLKPNPASPLPASPYG
GPTPASYTTASTPAGPAFPVQVKVAQPVRGCGPPRRGASQASGPLPGPHFPLPGRGEVWGPGYRSQREPGPGAKE
EAAGVSGPAGRGRGGEHGPQVPLSQPPEDELDRLTKKLVHDMNHPPSGEYFGQCGGCGEDVVGDGAGVVALDRVF
HVGCFVCSTCRAQLRGQHFYAVERRAYCEGCYVATLEKCATCSQPILDRILRAMGKAYHPGCFTCVVCHRGLDGI
PFTVDATSQIHCIEDFHRKFAPRCSVCGGAIMPEPGQEETVRIVALDRSFHIGCYKCEECGLLLSSEGECQGCYP
LDGHILCKACSAWRIQELSATVTTDC
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FIGURE 1384

GGCTTCTTGGCGCG**ATG**AGGTTCCGGTTCTGTGGTGATCTGGACTGTCCCGACTGGGTCCTGGCAGAAATCAGCA
CGCTGGCCAAGATGTCCTCTGTGAAGTTGCGGCTGCTCTGCAGCCAGGTACTAAAGGAGCTGCTGGGACAGGGGA
TTGATTATGAGAAGATCCTGAAGCTCACGGCTGACGCCAAGTTTGAGTCAGGCGATGTGAAGGCCACAGTGGCAG
TGCTGAGTTTCATCCTCTCCAGTGCGGCCAAGCACAGTGTCGATGGCGAATCCTTGTCCAGTGAACTGCAGCAGC
TGGGGCTGCCCAAAGAGCACGCGGCCAGCCTGTGCCGCTGTTATGAGGAGAAGCAAAGCCCCTTGCAGAAGCACT
TGCGGGTCTGCAGCCTACGCATGAATAGGTTGGCAGGTGTGGGCTGGCGGGTGGACTACACCCTGAGCTCCAGCC
TGCTGCAATCCGTGGAAGAGCCCATGGTGCACCTGCGGCTGGAGGTGGCAGCTGCCCCAGGGACCCCAGCCCAGC
CTGTTGCCATGTCCCTCTCAGCAGACAAGTTCCAGGTCCTCCTGGCAGAACTGAAGCAGGCCCAGACCCTGATGA
GCTCCCTGGGC**TGA**GGAGAAGGGTGTTCCAGGCCTGTGTGGAGCCGCCCTGCCCGTATGGAGTCACGCCCTCTGA
ACTGCTCTTCGGGAGGCAGCCCTGGTTCTAGGATGCTGAGGCCCTGGCCCGGACTCTGGCCTCCCAGATCCCCAG
CTGCCTCACTTCTCTCTTGAGAACTTGGCTCAGGGCTCCTGAGGACCTTTCCCAGCATTACCTTCCCTTCCCTTG
AAAGTAGAGATGAGGTTTCTCCATGTTGGTCAGGCTGGTCTCGAACTCCTGACCTCAGGTGATCCACCCACCTTG
CCCTCCCAAAGTGCTGGGATTACAGGCGTAAGCCACTGCGCCCAGCCACTGCCATCATCTTTAGGAAGAGAGAAG
TGACCATGCCTGAACCAGTCATTGGCAAGAGGAACGGTGTTATGGACTGAATGTTCATGTTCCTCCAGAATTCAT
ATGCTGAAGCCTCTGTCCACACATGCACACCAGATGAGGGCCATGTGCGCACACGAGGTGGCTGTCTACAAGGCC
AGAAAGAGGGCTGTCAACAGGAACTGCGTCTGCTGGCACCTTGATCTTGAACTTCCCAGCCTCCAGAACTGTGAG
AAAGAAATCTCTATGGTGTAAGCCACTAGTCTGTGGCATTGTTATAGCAGCTCGAGAAGACTAAGGCAGATGGGC
TTCCAGGACTGGCCCAGACCAGCCAGGGCTCCTTGTAGAAAAGGCTGATGCCAGGGTTGGCACATGGAGGGTACA
AGGAGGACTCGCCTGGAGTATCTTAAGGAACCTATCGAAGAATAATGGCTTGTTCCACTGGCCAAAGATGGGACA
ATTTGAACATCAAAAGAGATACTTACTGACTCCACTCCTGACTTCTGCTTCTGAAAAAATGAAGTAGGTGTTTTC
CCTATTCCTCCCACTAAGTACAGTTAACAACCCTGGATGTTACATATAAAACAAACAAAAGACTCCGAGCGATG
GAGAGAAGGCACCCTAGCCTGGCTGGGATCCTCAGGACCTGAGGCTCCACAGAGAGAAATTCCTGGAATCTGGAC
CCCATGGCCCAGTCAGGTTACACAAAACTGATCATCACAGATCTGTAGAACTATACAAAAGTGCTAACATTCATG
ATTAGGGTCTCAGAAGGTAAGGAGGAAGAGAGTGGAATGGAAAAAGTATTCAAAAAAATAATCACTAAAGGCCAG
GTGCAGTGGCCCATGCCTGTAATCCCAGCACTTTGGGAGGTGGGACAATTGCTTTAGACCTTGCAACTGGCCTGA
GCAACACAGGGAGACTCAGTTTCTCCAAAAAAATAAAAAATTAGCCGATCATGAAAAAAAAAAAAAAAAAAAA

FIGURE 1385

MRFRFCGDLDCPDWVLAEISTLAKMSSVKLRLLCSQVLKELLGQGIDYEKILKLTADAKFESGDVKATVAVLSFI
LSSAAKHSVDGESLSSELQQLGLPKEHAASLCRCYEEKQSPLQKHLRVCSLRMNRLAGVGWRVDYTLSSSLLQSV
EEPMVHLRLEVAAAPGTPAQPVAMSLSADKFQVLLAELKQAQTLMSSLG

FIGURE 1386

CGGACCGTGCAATGGCCCAGCGTAAGAATGCCAAGAGCAGCGGCAACAGCAGCAGCAGCGGCTCCGGCAGCGGTA
GCACGAGTGCGGGCAGCAGCAGCCCCGGGGCCCGGAGAGAGACAAAGCATGGAGGACACAAGAATGGGAGGAAAG
GCGGACTCTCAGGAACTTCATTCTTCACGTGGTTTATGGTGATTGCATTGCTGGGCGTCTGGACATCTGTAGCTG
TCGTTTGGTTTGATCTTGTTGACTATGAGGAAGTTCTAGGAAAACTAGGAATCTATGATGCTGATGGTGATGGAG
ATTTTGATGTGGATGATGCCAAAGTTTTATTAGGACTTAAAGAGAGATCTACTTCAGAGCCAGCAGTCCCGCCAG
AAGAGGCTGAGCCACACACTGAGCCCGAGGAGCAGGTTCCTGTGGAGGCAGAACCCCAGAATATCGAAGATGAAG
CAAAAGAACAAATTCAGTCCCTTCTCCATGAAATGGTACACGCAGAACATGTTGAGGGAGAAGACTTGCAACAAG
AAGATGGACCCACAGGAGAACCACAACAAGAGGATGATGAGTTTCTTATGGCGACTGATGTAGATGATAGATTTG
AGACCCTGGAACCTGAAGTATCTCATGAAGAAACCGAGCATAGTTACCACGTGGAAGAGACAGTTTCACAAGACT
GTAATCAGGATATGGAAGAGATGATGTCTGAGCAGGAAAATCCAGATTCCAGTGAACCAGTAGTAGAAGATGAAA
GATTGCACCATGATACAGATGATGTAACATACCAAGTCTATGAGGAACAAGCAGTATATGAACCTCTAGAAAATG
AAGGGATAGAAATCACAGAAGTAACTGCTCCCCCTGAGGATAATCCTGTAGAAGATTCACAGGTAATTGTAGAAG
AAGTAAGCATTTTTCCTGTGGAAGAACAGCAGGAAGTACCACCAGATACTTAAAGCTTCAAAAAGACTGCCCCTA
CCACCACAGGAGGACCAGCCTAACCATACGCTCCAAAAGATGGCTGTGATAGATCTTGTGAAGCAATTACTGAGC
AGATCAAGATCTTTGGGAAGGAACACTAAAGATGTTTTGAATGAATTATAGTCCACTGGCATTTTAGTGTATTTT
TTTTTCTTTTTACAAACACACATTTCTAAAAATGTCATGTTACATTCCTGCATGTCCCTTTTGATAGCATTAGTG
GATCCATTGGATTTCTTTTTTCTTTTTGTGAGACAGCTTTTAGTCTTACCTGAATTTATGTGTGTTTTTCCGACA
GTGGTTAATAATTATATTGGTGATGTAGCAGCAATTGTGTTGGCAGGGTTTTCATATATTATTAGTAATTAACAC
TAACTGTTGGACTGACTTGTGTACACTGTGTTAAACATGATTTAAAAGCTATTAAGAGTACTTTGTGTTAGCACT
CTTAAAAACGCTAACAGAGATCATCATTAGCTGTGAAGATTTGAGTTGTATATACCTGCACTGATATTCTTATCA
AAAATTTCTACATTAGCTTTAAGTGTTCAGATTAACACTTTTGAAATTTTTGTAGCTTTTAGCTGATTAATTAGA
AAAATTAATATTTCAGTGAAAGTTTTAAATTATCATTTATTTATTTTTTAAATGAGAGGGGAAAGCTGAAATTC
CTTGTTAAGACACAAGGAAAAAGAATGGCCCTACTATTATCATGCAAAAATGCTTTGTTGGCACCTCAGATTAAT
CATATAATAGCTATAGTCTCTTCAGCATTTGTTTAAATTTTAGAAAACCTGTATAAATTACTGGTGCATAACTTA
AAGATTATTCTGCCTTTGGCTAATTGAGTAATTCCCTCCAGCACTAGAGACCGCTCAGTGCTCTTACTAGATGA
ACTCAGTAACGCCTTGAGCTGGGTTGATTGAGGATGTGTGAAAAGCTCACAGAGCCCGATGCCTGCTGCTATTTC
ACGGCAATGAGCCTTTTTCTTTCTACACTGAAGATTTTCTTCTTATTTAATGTGGTTTATTTTGGGCTCAGAAAT
AATTGCTCTGTTGAAAATAATCCTTTGTCAGAAAAGAAGGTAGCTACCACATCATTTTGAAAGGACCATGAGCAA
CTATAAGCAAAGCCATAAGAAGTGGTTTGATCGATATATTAGGGGTAGCTCTTGATTTTGTTAACATTAAGATAA
GGTGACTTTTTCCCCCTGCTTTTAGGATTAAAATCAAAGATACTTCTATATTTTATCACTATAGATCATAGTTA
TTATACAATGTAGTGAGTCCTGCATGGGTACTCGATGTGTAATGAAACCTGAAATAATAAGATAATAAGAAAAGC
AATAATTTTCTAAAGCTGTGCTGTCGGTGATACAGAGACGATACTCAAATTATAATAAAACTCTTCATTTTGTGA
ATTATAGAAGCTACTTTTTATAAAGCCATATTTTTTTAGGGAAACTAAGGAGTGACATAGAACTGATGAATGAGC
AAAAGTAAGTTTTGCTGGATTTTTGTAGAACTCTGGACGTTGAGGATTCATTATGCTGTGGTTAACTTTAAATAT
TTTTGAATTCCAAATATCTGAATTAATGAGCCTTGTGTTTACAAATATGTGCCATTGTGCAACATCGGTGGATTT
TCTAAAAATAATGTAAATGTCTTCTATTAAATGTTGAGTGCAATAAAATCCAGAA

FIGURE 1387

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MAQRKNAKSSGNSSSSGSGSGSTSAGSSSPGARRETKHGGHKNGRKGGLSGTSFFTWFMVIALLGVWTSVAVVWF
DLVDYEEVLGKLGIYDADGDGDFDVDDAKVLLGLKERSTSEPAVPPEEAEPHTEPEEQVPVEAEPQÑIEDEAKEQ
IQSLLHEMVHAEHVEGEDLQQEDGPTGEPQQEDDEFLMATDVDDRFETLEPEVSHEETEHSYHVEETVSQDCNQD
MEEMMSEQENPDSSEPVVEDERLHHDTDDVTYQVYEEQAVYEPLENEGIEITEVTAPPEDNPVEDSQVIVEEVSI
FPVEEQQEVPPETNRKTDDPEQKAKVKKKKPKLLNKFDKTIKAELDAAEKLRKRGKIEEAVNAFKELVRKYPQSP
RARYGKAQCEDDLAEKRRSNEVLRGAIETYQEVASLPDVPADLLKLSLKRRSDRQQFLGHMRGSLLTLQRLVQLF
PNDTSLKNDLGVGYLLIGDNDNAKKVYEEVLSVTPNDGFAKVHYGFILKAQNKIAESIPYLKEGIESGDPGTDDG
RFYFHLGDAMQRVGNKEAYKWYELGHKRGHFASVWQRSLYNVNGLKAQPWWTPKETGYTELVKSLERNWKLIRDE
GLAVMDKAKGLFLPEDENLREKGDWSQFTLWQQGRRNENACKGAPKTCTLLEKFPETTGCRRGQIKYSIMHPGTH
VWPHTGPTNCRLRMHLGLVIPKEGCKIRCANETKTWEEGKVLIFDDSFEHEVWQDASSFRLIFIVDVWHPELTPQ
QRRSLPAI
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FIGURE 1388

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AGGCTGTCTGCAGAGATTTGAAAAATGGCAACAAATGAAAGTGTCAGCATCTTTAGTTCAGCATCCTTGGCTGTG
GAATATGTAGATTCACTTTTACCTGAGAATCCTCTGCAAGAACCATTTAAAAATGCTTGGAACTATATGTTGAAT
AATTATACAAAGTTCCAGATTGCAACATGGGGATCCCTTATAGTTCATGAAGCCCTTTATTTCTTATTCTGTTTA
CCTGGATTTTTATTTCAATTTATACCTTATATGAAAAAATACAAAATTCAAAAGGATAAGCCAGAGACATGGGAA
AACCAATGGAAGTGTTTCAAAGTTCTTCTCTTTAATCACTTCTGTATCCAGCTGCCTTTGATTTGTGGAACCTAT
TATTTTACAGAGTATTTCAATATTCCTTATGATTGGGAAGAATGCCAAGATGGTATTTTCTTTTGGCAAGATGC
TTTGGTTGTGCAGTCATTGAAGATACTTGGCACTATTTTCTGCATAGACTCTTACACCACAAAAGAATATACAAG
TATATTCATAAAGTTCATCATGAGTTTCAGGCTCCATTTGGAATGGAAGCTGAATATGCACATCCTTTGGAGACT
CTAATTCTTGGAACTGGATTTTTCATTGGAATCGTGCTTTTGTGTGATCATGTAATTCTTCTTTGGGCATGGGTG
ACCATTCGTTTATTAGAAACTATTGATGTCCATAGTGGTTATGATATTCCTCTCAACCCTTTAAATCTGATCCCT
TTCTATGCTGGTTCTCGGCATCATGATTTCCACCACATGAACTTCATTGGAAACTATGCTTCAACATTTACATGG
TGGGATCGAATTTTTGGAACAGACTCTCAGTATAATGCCTATAATGAAAAGAGGAAGAAGTTTGAGAAAAAGACT
GAATAAATATCTCACGTAAACCTTCCTGAAAGATAAACGTTTTCCTGAATTCAGAAACTAGTAGCTAACATTGCT
TCTGGAGAGCAGAAATAAGCATGTCTTCTGGCTACTAAGTGATAAAAAGAACATTAACAACCTTTAATTACCTTC
CTAGTGGGAACTTTTTCTACTTTACCTACAAGTTCTATATATGTAGAAATGAATAAATATATATTTAAGTACAGT
TTTCATGAGGAAGTTTTAAAAGACCATGTTCCTAAGCTTCCAAGAAGGTTTTGGATACTAGAAGTATTAATCTAT
GGCTTTTCTCCCAGTAAAACCATAGGCCTGAAGTTCACATTGGGTCTTTAAATCTTTTAGATATATACTGGTCAT
TTCAGAAAATTCTTCATAGTGGTATTGGCCTTATATTTAACTTTTTTTTTATTTTTTTTTTGAGACAAAGCCACA
CTCTGTCTCCTTGGCTGGAGTGTGGTGGCACAGTCTCAGCTCACTGCAACCTCTGCCTCCCAGTTCAAGCAATTC
TTCTGCCTCAGCCTCCCAAGTAGCTGGGATTACAGGCACCCGCCACCACGCCCAGCTAATTTTTGTATTTTTGTA
GAGATGGGGTTTCACGATGTTGGCCAGGCTGGTCTCAAACTTCTGACCTCAAGTGATCTGCCCACCTTGGCCTCC
CAAAGTGCTGGGATTACAGGTGTAAGCCACTGCGCCCGGCCTTTTTAACTTTAAACATGTTTTAGAATTCACCTA
AAGATCAAAATATCATGGATTGAACCTCATCAATTGATAGCAGTGAGTGACTGAAGCTTCCAAATCAAGAAAAGC
CGGCACCAAGAACTTCCATTCTAATCTAGAGCTGACCAGTTTGAGCTGATTCTCTCTTTGAAGAGTCCTTCTTGA
TTGCAGTGCAGTACTGGCATTTCTGAATGGATGTAAGTGGAGTATTTTAGTCTAAAGGCTTTTCAAATTACTTGA
ATTTTTTAAAAATTGAGGAGCTTTATTTCTATTTACCCTTCCATTTTTGTGTGAAAAAAAAAAAAAAA
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1560/2825
FIGURE 1389

MATNESVSIFSSASLAVEYVDSLLPENPLQEPFKNAWNYMLNNYTKFQIATWGSLIVHEALYFLFCLPGFLFQFI
PYMKKYKIQKDKPETWENQWKCFKVLLFNHFCIQLPLICGTYYFTEYFNIPYDWERMPRWYFLLARCFGCAVIED
TWHYFLHRLLHHKRIYKYIHKVHHEFQAPFGMEAEYAHPLETLILGTGFFIGIVLLCDHVILLWAWVTIRLLETI
DVHSGYDIPLNPLNLIPFYAGSRHHDFHHMNFIGNYASTFTWWDRIFGTDSQYNAYNEKRKKFEKKTE

FIGURE 1390

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AGGGGCGCTCCGGCCAGTGATTGGCTGGAGGTTTGTTAACTATTCATGAGGGGGCGGGCCGAGCGGGGCGGCCTT
TGTTAAGCAGCGAGGGCGCGACCGCGGGTACTCTGCTGCCGGCTTCTCGGAGCGGCGCTGGGCGACCAGAGCAGG
GTCGAGATGTCCTACATCCCGGGCCAGCCGGTCACCGCCGTGGTGCAAAGAGTTGAAATTCACAAGCTGCGTCAA
GGTGAGAACTTAATCCTGGGTTTCAGCATTGGAGGTGGAATCGACCAGGACCCTTCCCAGAATCCCTTCTCTGAA
GACAAGACGGACAAGGGTATTTATGTCACACGGGTGTCTGAAGGAGGCCCTGCTGAAATCGCTGGGCTGCAGATT
GGAGACAAGATCATGCAGGTGAACGGCTGGGACATGACCATGGTCACACACGACCAGGCCCGCAAGCGGCTCACC
AAGCGCTCGGAGGAGGTGGTGCGTCTGCTGGTGACGCGGCAGTCGCTGCAGAAGGCCGTGCAGCAGTCCATGCTG
TCCTAGCAGCCACCACCATCTGCGACTCCTGCCTGCCGCCTCTCTGTACAGTAACGCCACTTCCACACTCTGTCC
CCATCTGGCTTCTGCTGACCGCTGGGCCCCAGCTCAGAAGGGCTATAGCTGGTCCCAGAGGCCTGGCCTGGCCTT
CCTTCCCTTCTCCCATCCCTGGCCTGGGGCCTCTGGGACCAGCTTTCTCTCCTGGACACCGAGGATTGGAAATAA
GGGCCTGGAGCTGAGTAGTAGCCAGTCTGCTGTGACCACAGGCTCAGGTCCGACCCTGCTGCTTGGCCACAGCAG
TGGCTGGGCAAGTGGGAACCACTATCTCTTGGGAGCCCCCAAAAGCTGGGAAATGCTGGAGGAACCAGGCCTTTC
CCGCTTTTGCCTGGCTGCAGGGTTCGGCTCCGCCCCTGCCCCCCAGCCCTCGTGTGTCCACACCGCAGTGCCTCT
GCCCCTCGGGGGACTGGACACACATCCTGCCAGAGGCGCTACGAAGCTTTGCCCAGATGAAGCCAGGTGGGCTCC
GCGTTCACTCCCACTCTCCCGAGGGGTGCTGGCCTCCCCAGGGTTTGCCTTCTTACGGATTTAGACGAGGTTCGA
GGCTCACCTATCAGGGCAGCTCTCAGGATTGTCATTTTCCTCTTTGCCTGTGGGTTTAACTTTTGTATTTTTTTA
ATCACAAGTTTGATACAAAATGTTTTTATCGTACTCTTTGGAGATGCCCATTCTACTTTTGAATTTAGCTTTTAC
TAATTCGCATCTGGAAGCTCAGCAAGTGCACAAGCCTTACTTTGGTTACCGTGGAAACCACTGCCGCCCCTCCCC
GATGTGGTGCGCTCAATAAAAATGCTGGAATTCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAA
```

FIGURE 1391

MSYIPGQPVTAVVQRVEIHKLRQGENLILGFSIGGGIDQDPSQNPFSEDKTDKGIYVTRVSEGGPAEIAGLQIGD
KIMQVNGWDMTMVTHDQARKRLTKRSEEVVRLLVTRQSLQKAVQQSMLS

FIGURE 1392

GCGCCCGCGCCTCGGGCCGTCGGGAGCGGAGCCTCCTCGGGACCAGGACTTCAGGGCCACAGGTGCTGCCAAG**AT**
GCTCCAGGGCACCTGCTCCGTGCTCCTGCTCTGGGGAATCCTGGGGGGCCATCCAGGCCCAGCAGCAGGAGGTCAT
CTCGCCGGACACTACCGAGAGAAACAACAACTGCCCAGAGAAGACCGACTGCCCCATCCACGTGTACTTCGTGCT
GGACACCTCGGAGAGCGTCACCATGCAGTCCCCCACGGACATCCTGCTCTTCCACATGAAGCAGTTCGTGCCGCA
GTTCATCAGCCAGCTGCAGAACGAGTTCTACCTGGACCAGGTGGCGCTGAGCTGGCGCTACGGCGGCCTGCACTT
CTCTGACCAGGTGGAGGTGTTCAGCCCACCGGGCAGCGACCGGGCCTCCTTCATCAAGAACCTGCAGGGCATCAG
CTCCTTCCGCCGCGGCACCTTCACCGACTGCGCGCTGGCCAACATGACGGAGCAGATCCGGCAGGACCGCAGCAA
GGGCACCGTCCACTTCGCCGTGGTCATCACCGACGGCCACGTCACCGGCAGCCCCTGCGGGGGCATCAAGCTGCA
GGCCGAGCGGGCCCGCGAGGAGGGCATCCGGCTCTTCGCCGTGGCCCCCAACCAGAACCTGAAGGAGCAGGGCCT
GCGGGACATCGCCAGCACGCCGCACGAGCTCTACCGCAACGACTACGCCACCATGCTGCCCGACTCCACCGAGAT
CAACCAGGACACCATCAACCGCATCATCAAGGTCATGAAACACGAAGCCTACGGAGAGTGCTACAAGGTGAGCTG
CCTGGAAATCCCTGGGCCCTCTGGGCCCAAGGGCTACCGTGGACAGAAGGGTGCCAAGGGCAACATGGGTGAGCC
GGGAGAGCCTGGCCAGAAGGGAAGACAGGGAGACCCGGGCATCGAAGGCCCCATTGGATTCCCAGGACCCAAGGG
CGTTCCTGGCTTCAAAGGAGAGAAGGGTGAATTTGGAGCCGACGGTCGCAAGGGGGCCCCTGGCCTGGCTGGCAA
GAACGGGACCGATGGACAGAAGGGCAAGCTGGGGCGCATCGGACCTCCTGGCTGCAAGGGAGACCCTGGAAACCG
GGGCCCCGACGGTTACCCGGGGGGAAGCAGGGAGTCCAGGGGAGCGAGGAGACCAAGGCGGCAAGGGGGACCCTGG
CCGCCCAGGACGCAGAGGGCCCCCGGGAGAAATCGGGGCCAAGGGAAGCAAGGGGTATCAAGGCAACAATGGAGC
CCCAGGAAGTCCTGGTGTGAAAGGAGCCAAGGGCGGGCCTGGGCCCCGCGGACCCAAAGGCGAGCCGGGGCGCAG
GGGAGACCCCGGCACCAAGGGCAGCCCAGGCAGCGATGGCCCCAAGGGGGAGAAGGGGGACCCTGGCCCTGAGGG
CCCCCGCGGCCTGGCTGGAGAGGTTGGCAACAAAGGAGCCAAGGGAGACCGAGGCTTGCCTGGACCCAGAGGCCC
CCAGGGAGCTCTTGGGGAGCCCGGAAAGCAGGGATCTCGGGGAGACCCCGGTGATGCAGGACCCCGTGGAGACTC
AGGACAGCCAGGCCCCAAGGGAGACCCCGGCAGGCCTGGATTCAGCTACCCAGGACCCCGAGGAGCACCCGGAGA
AAAAGGCGAGCCCGGCCCACGCGGCCCCGAGGGAGGCCGAGGCGACTTTGGCTTGAAAGGAGAACCTGGGAGGAA
AGGAGAGAAAGGAGAGCCTGCGGATCCTGGTCCCCCTGGTGAGCCAGGCCCTCGGGGGCCAAGAGGAGTCCCAGG
ACCCGAGGGTGAGCCCGGCCCCCCTGGAGACCCCGGTCTCACGGAGTGTGACGTCATGACCTACGTGAGGGAGAC
CTGCGGGTGCTGCGACTGTGAGAAGCGCTGTGGCGCCCTGGACGTGGTCTTCGTCATCGACAGCTCCGAGAGCAT
TGGGTACACCAACTTCACACTGGAGAAGAACTTCGTCATCAACGTGGTCAACAGGCTGGGTGCCATCGCTAAGGA
CCCCAAGTCCGAGACAGGGACGCGTGTGGGCGTGGTGCAGTACAGCCACGAGGGCACCTTTGAGGCCATCCAGCT
GGACGACGAACATATCGACTCCCTGTCGAGCTTCAAGGAGGCTGTCAAGAACCTCGAGTGGATTGCGGGCGGCAC
CTGGACACCCTCAGCCCTCAAGTTTGCCTACGACCGCCTCATCAAGGAGAGCCGGCGCCAGAAGACACGTGTGTT
TGCGGTGGTCATCACGGACGGGCGCCACGACCCTCGGGACGATGACCTCAACTTGCGGGCGCTGTGCGATCGCGA
CGTCACAGTGACGGCCATCGGCATCGGGGACATGTTCCACGAGAAGCACGAGAGTGAAAACCTCTACTCCATCGC
CTGCGACAAGCCACAGCAGGTGCGCAACATGACGCTGTTCTCCGACCTGGTCGCTGAGAAGTTCATCGATGACAT
GGAGGACGTCCTCTGCCCGGACCCTCAGATCGTGTGCCCAGACCTTCCCTGCCAAACAGAGCTGTCCGTGGCACA
GTGCACGCAGCGGCCCGTGGACATCGTCTTCCTGCTGGACGGCTCCGAGCGGCTGGGTGAGCAGAACTTCCACAA
GGCCCGGCGCTTCGTGGAGCAGGTGGCGCGGCGGCTGACGCTGGCCCGGAGGGACGACGACCCTCTCAACGCACG
CGTGGCGCTGCTGCAGTTTGGTGGCCCCGGCGAGCAGCAGGTGGCCTTCCCGCTGAGCCACAACCTCACTGCCAT
CCACGAGGCGCTGGAGACCACACAATACCTGAACTCCTTCTCGCACGTGGGCGCAGGCGTGGTGCACGCCATCAA
TGCCATCGTGCGCAGCCCGCGTGGCGGGGCCCGGAGGCACGCAGAGCTGTCCTTCGTGTTCCTCACGGACGGCGT
CACGGGCAACGACAGTCTGCACGAGTCGGCGCACTCCATGCGCAAGCAGAACGTGGTACCCACCGTGCTGGCCTT
GGGCAGCGACGTGGACATGGACGTGCTCACCACGCTCAGCCTGGGTGACCGCGCCGCGTGTTCCACGAGAAGGA
CTATGACAGCCTGGCGCAACCCGGCTTCTTCGACCGCTTCATCCGCTGGATCTGC**TAG**CGCCGCCGCCCGGGCCC
CGCAGTCGAGGGTCGTGAGCCCACCCCGTCCATGGTGCTAAGCGGGCCCGGGTCCCACACGGCCAGCACCGCTGC
TCACTCGGACGACGCCCTGGGCCTGCACCTCTCCAGCTCCTCCCACGGGGTCCCCGTAGCCCCGGCCCCCGCCCA
GCCCCAGGTCTCCCCAGGCCCTCCGCAGGCTGCCCGGCCTCCCTCCCCCTGCAGCCATCCCAAGGCTCCTGACCT
ACCTGGCCCCTGAGCTCTGGAGCAAGCCCTGACCCAATAAAGGCTTTGAACCCAAAAAAAAAAA

FIGURE 1393

MLQGTCSVLLLWGILGAIQAQQQEVISPDTTERNNNCPEKTDCPIHVYFVLDTSESVTMQSPTDILLFHMKQFVP
QFISQLQNEFYLDQVALSWRYGGLHFSDQVEVFSPPGSDRASFIKNLQGISSFRRGTFTDCALANMTEQIRQDRS
KGTVHFAVVITDGHVTGSPCGGIKLQAERAREEGIRLFAVAPNQNLKEQGLRDIASTPHELYRNDYATMLPDSTE
INQDTINRIIKVMKHEAYGECYKVSCLEIPGPSGPKGYRGQKGAKGNMGEPGEPGQKGRQGDPGIEGPIGFPGPK
GVPGFKGEKGEFGADGRKGAPGLAGKNGTDGQKGKLGRIGPPGCKGDPGNRGPDGYPGEAGSPGERGDQGGKGDP
GRPGRRGPPGEIGAKGSKGYQGNNGAPGSPGVKGAKGGPGPRGPKGEPGRRGDPGTKGSPGSDGPKGEKGDPGPE
GPRGLAGEVGNKGAKGDRGLPGPRGPQGALGEPGKQGSRGDPGDAGPRGDSGQPGPKGDPGRPGFSYPGPRGAPG
EKGEPGPRGPEGGRGDFGLKGEPGRKGEKGEPADPGPPGEPGPRGPRGVPGPEGEPGPPGDPGLTECDVMTYVRE
TCGCCDCEKRCGALDVVFVIDSSESIGYTNFTLEKNFVINVVNRLGAIAKDPKSETGTRVGVVQYSHEGTFEAIQ
LDDEHIDSLSSFKEAVKNLEWIAGGTWTPSALKFAYDRLIKESRRQKTRVFAVVITDGRHDPRDDDLNLRALCDR
DVTVTAIGIGDMFHEKHESENLYSIACDKPQQVRNMTLFSDLVAEKFIDDMEDVLCPDPQIVCPDLPCQTELSVA
QCTQRPVDIVFLLDGSERLGEQNFHKARRFVEQVARRLTLARRDDDPLNARVALLQFGGPGEQQVAFPLSHNLTA
IHEALETTQYLNSFSHVGAGVVHAINAIVRSPRGGARRHAELSFVFLTDGVTGNDSLHESAHSMRKQNVVPTVLA
LGSDVDMDVLTTLSLGDRAAVFHEKDYDSLAQPGFFDRFIRWIC

FIGURE 1394

CTCTGAGGAGAAGCAGCAGCAAACATTTGCTAGTCAGACAAGTGACAGGGA**ATG**GATTCCAAACAGCAGTGTGTA
AAGCTAAATGATGGCCACTTCATGCCTGTATTGGGATTTGGCACCTATGCACCTCCAGAGGTTCCGAGAAGTAAA
GCTTTGGAGGTCACAAAATTAGCAATAGAAGCTGGGTTCCGCCATATAGATTCTGCTCATTTATACAATAATGAG
GAGCAGGTTGGACTGGCCATCCGAAGCAAGATTGCAGATGGCAGTGTGAAGAGAGAAGACATATTCTACACTTCA
AAGCTTTGGTCCACTTTTCATCGACCAGAGTTGGTCCGACCAGCCTTGGAAAACTCACTGAAAAAAGCTCAATTG
GACTATGTTGACCTCTATCTTATTCATTCTCCAATGTCTCTAAAGCCAGGTGAGGAACTTTCACCAACAGATGAA
AATGGAAAAGTAATATTTGACATAGTGGATCTCTGTACCACCTGGGAGGCCATGGAGAAGTGTAAGGATGCAGGA
TTGGCCAAGTCCATTGGGGTGTCAAACTTCAACCGCAGGCAGCTGGAGATGATCCTCAACAAGCCAGGACTCAAG
TACAAGCCTGTCTGCAACCAGGTAGAATGTCATCCGTATTTCAACCGGAGTAAATTGCTAGATTTCTGCAAGTCG
AAAGATATTGTTCTGGTTGCCTATAGTGCTCTGGGATCTCAACGAGACAAACGATGGGTGGACCCGAACTCCCCG
GTGCTCTTGGAGGACCCAGTCCTTTGTGCCTTGGCAAAAAAGCACAAGCGAACCCCAGCCCTGATTGCCCTGCGC
TACCAGCTGCAGCGTGGGGTTGTGGTCCTGGCCAAGAGCTACAATGAGCAGCGCATCAGACAGAACGTGCAGGTT
TTTGAGTTCCAGTTGACTGCAGAGGACATGAAAGCCATAGATGGCCTAGACAGAAATCTCCACTATTTTAACAGT
GATAGTTTTGCTAGCCACCCTAATTATCCATATTCAGATGAATAT**TAA**CATGGAGAGCTTTGCCTGATGTCTACC
AGAAGCCCTGTGTGTGGATGGTGACGCAGAGGACGTCTCTATGCCGGTGACTGGACATATCACCTCTACTTAAAT
CCGTCCTGTTTAGCGACTTCAGTCAACTACAGCTGAGTCCATAGGCCAGAAAGACAATAAATTTTTATCATTTTG
AAAT

FIGURE 1395

MDSKQQCVKLNDGHFMPVLGFGTYAPPEVPRSKALEVTKLAIEAGFRHIDSAHLYNNEEQVGLAIRSKIADGSVK
REDIFYTSKLWSTFHRPELVRPALENSLKKAQLDYVDLYLIHSPMSLKPGEELSPTDENGKVIFDIVDLCTTWEA
MEKCKDAGLAKSIGVSNFNRRQLEMILNKPGLKYKPVCNQVECHPYFNRSKLLDFCKSKDIVLVAYSALGSQRDK
RWVDPNSPVLLEDPVLCALAKKHKRTPALIALRYQLQRGVVVLAKSYNEQRIRQNVQVFEFQLTAEDMKAIDGLD
RNLHYFNSDSFASHPNYPYSDEY

FIGURE 1396A

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GCGGGGACCGCGACGAGCCCGGGTCGCCGTTGGCAGCAGCAGCAGCAACACCAGCAGCAGCAGCAGCCCCGGCGG
CGGCGCGGAACCCCGAGCGCCCGGGCGCACCCCGGCTTCCCGGAGCGCGACGCGGCGGCAGCAGCCCCGGTGCGG
CCGCGCGCGCCTTAGGCTCGGCCCCGCGGCTCGGGGACCCCGACTCCCGGCCCAGCGAGCGCGTCCCCCGGCGCC
GCCCGAGAGCCCGAGGAGGCAGCGGCCGCAGAGCCCGGGGGAGGGGGGCGGCCACCGCCCGCGCCGGGCATCCTC
AGGAGCCCCAGAGCGCGGAGGGCGCGGCGCCGCCGAGCGGTGCTGGCCCCGCGGGCTCCCCGGACCTTCCCCAC
CGCCTGGGCCCGAGGGACGCGTGATCGGGCGGGCGGCCGGGCGCAAGGGTGGGAGGGAGCCGCCCCCGCCCGCGC
CCCCTCCGCCCCTCGCCCCAAACCCCTGGGCGCCGGGCCCGGGCCGCGCGGCCTGAAGCGCCCGCG**ATG**GCGAGC
CCGCCGCGGCACGGGCCGCCCGGGCCGGCGAGCGGAGACGGCCCCAACCTCAACAACAACAACAACAACAACAAC
AACCACAGCGTGCGCAAGTGCGGCTACCTGCGCAACGAAGAGCATGGCCACAAGCGCTTCTTCGTGCTGCGCGGA
CCCGGCGCGGGCGGCGACGAGGCGACGGCGGGCGGGGGGTCGGCGCCGCAACCGCCGCGGCTCGAGTACTACGAG
AGCGAGAAAAAGTGGCGGAGCAAGGCAGGCGCGCCGAAACGGGTGATCGCTCTCGACTGCTGCCTGAACATCAAC
AAGCGCGCCGACGCCAAGCACAAGTACCTGATCGCCCTCTACACCAAGGACGAGTACTTCGCCGTGGCCGCCGAG
AACGAGCAGGAGCAGGAGGGCTGGTACCGCGCGCTCACCGACCTGGTCAGCGAGGGCCGCGCGGCCGCCGGAGAC
GCGCCCCCGCCGCCGCGCCCGCCGCGTCCTGCAGCGCCTCCCTGCCCGGCGCCCTGGGCGGCTCTGCCGGCGCC
GCCGGGGCCGAGGACAGCTACGGGCTGGTGGCTCCCGCCACGGCCGCCTACCGTGAGGTGTGGCAGGTGAACCTG
AAGCCCAAGGGTCTGGGCCAGAGCAAGAACCTGACGGGGGTGTACCGTCTGTGCCTGTCTGCGCGCACCATCGGC
TTCGTGAAGCTCAACTGCGAGCAGCCGTCGGTGACGCTGCAGCTCATGAACATCCGCCGCTGCGGCCACTCGGAC
AGCTTCTTCTTCATCGAGGTGGGCCGCTCGGCCGTCACAGGCCCCGGCGAGCTGTGGATGCAGGCGGACGACTCG
GTGGTGGCGCAGAACATCCACGAGACCATCCTGGAGGCCATGAAGGCGCTCAAGGAGCTCTTCGAGTTCCGGCCG
CGCAGTAAGAGCCAATCGTCGGGGTCGTCGGCCACGCACCCCATCAGCGTCCCCGGCGCGCGCCGCCACCACCAC
CTGGTCAACCTGCCCCCCAGCCAGACGGGCCTGGTGCGCCGCTCGCGCACCGACAGCCTGGCCGCCACCCCGCCG
GCGGCCAAGTGCAGCTCGTGCCGGGTGCGCACCGCCAGCGAGGGCGACGGCGGCCGGGCTGCGGGAGCGGCGGCC
GCGGCGCAGAGGCTGGTGTCGGTGGCTGGGAGCCCCCTGAGCCCCGGGCCGGTGCGCGCGCCCCTGAGCCGCTCG
CACACCCTGAGCGGCGGCTGCGGCGGCCGCGGGAGCAAGGTGGCGCTGCTGCCGGCAGGGGGCGCGCTGCAACAC
AGCCGCTCCATGTCCATGCCCGTGGCGCACTCGCCGCCCGCCGCCACCAGCCCCGGCTCCCTGTCGTCCAGCAGC
GGCCACGGCTCGGGCTCCTACCCGCCGCCGCCCGGCCCGCACCCGCCTCTGCCGCATCCGCTGCACCACGGCCCC
GGCCAGCGGCCCTCCAGCGGCAGCGCCTCCGCCTCGGGCTCCCCAGCGACCCCGGCTTCATGTCCCTGGACGAG
TACGGCTCCAGCCCAGGCGACCTGCGCGCCTTCTGCAGCCACCGAAGCAACACGCCCGAGTCCATCGCGGAGACG
CCCCCGGCCCGAGACGGCGGCGGCGGCGGTGAGTTCTACGGGTACATGACCATGGACAGGCCCCTGAGCCACTGT
GGCCGCTCCTACCGCCGGGTCTCGGGGGACGCGGCCCAGGACCTGGACCGAGGGCTGCGCAAGAGGACCTACTCC
CTGACCACGCCAGCCCGGCAGCGGCCGGTGCCCCAGCCCTCCTCTGCCTCGCTGGATGAATACACCCTGATGCGG
GCCACCTTCTCGGGCAGCGCGGGCCGCCTCTGCCCGTCCTGCCCCGCGTCCTCTCCCAAGGTGGCCTACCACCCC
TACCCAGAGGACTACGAGACATCGAGATCGGCTCCCACAGGAGCTCCAGCAGCAACCTGGGGGGCAGACGACGGC
TACATGCCCATGACGCCCGGCGCGGCCTTCGCGGGCAGTGGGAGCGGCAGCTGCAGGAGCGACGACTACATGCCC
ATGAGCCCCGCCAGCGTGTCCGCCCCCAAGCAGATCTTGCAGCCCAGGGCCGCCGCCGCCGCCGCCGCCGCCGTG
CCTTCTGCGGGGCCTGCGGGGCCAGCACCCACCTCTGCGGCGGGCAGGACATTCCCGGCGAGCGGGGGCGGCTAC
AAGGCCAGCTCGCCCGCCGAGAGCTCCCCCGAGGACAGTGGGTACATGCGCATGTGGTGCGGTTCCAAGCTGTCC
ATGGAGCATGCAGATGGCAAGCTGCTGCCCAACGGGGACTACCTCAACGTGTCCCCCAGCGACGCGGTCACCACG
GGCACCCCGCCCGACTTCTTCTCCGCAGCCCTGCACCCCGGCGGGGAGCCGCTCAGGGGCGTTCCCGGCTGCTGC
TACAGCTCCTTGCCCCGCTCCTACAAGGCCCCCTACACCTGTGGCGGGGACAGCGACCAGTACGTGCTCATGAGC
TCCCCCGTGGGGCGCATCCTGGAGGAGGAGCGTCTGGAGCCTCAGGCCACGCCAGGGCCCAGCCAGGCGGCCAGC
GCCTTCGGGGCCGGCCCCACGCAGCCCCCTCACCCTGTAGTGCCTTCGCCCGTGCGGCGTAGCGGCCGCCGGTCA
GGTTTCTTGGGCCAGCGCGGCCGGGCGGTGAGGCCCACGCGCCTGTCCCTGGAGGGGCTGCCCAGCCTGCCCAGC
ATGCACGAGTACCCACTGCCACCGGAGCCCAAGAGCCCCGGCGAGTACATCAACATCGACTTTGGCGAGCCCGGG
GCCCGCCTGTCGCCGCCCGCGCCTCCCCTGCTGGCGTCGGCGGCCTCGTCCTCCTCGCTCTTGTCCGCCAGCAGC
CCGGCCTCGTCGCTGGGCTCAGGCACCCCGGGCACCAGCAGCGACAGCCGGCAGCGGTCTCCGCTCTCCGACTAC
ATGAACCTCGACTTCAGCTCCCCCAAGTCTCCTAAGCCGGGCGCCCCGAGCGGCCACCCCGTGGGCTCCTTGGAC
GGCCTCCTGTCCCCCGAGGCCTCCTCCCCGTATCCGCCGTTGCCCCCGCGTCCGTCCGCGTCCCCGTCGTCGTCT
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FIGURE 1396B

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CTGCAGCCGCCGCCACCGCCGCCGGCCCCGGGGGAGCTGTACCGCCTGCCCCCCGCCTCGGCCGTTGCCACCGCC
CAGGGCCCGGGCGCCGCCTCATCGTTGTCCTCGGACACCGGGGACAATGGTGACTACACCGAGATGGCTTTTGGT
GTGGCCGCCACCCCGCCGCAACCTATCGCGGCCCCCCCGAAGCCAGAAGCTGCCCGCGTGGCCAGCCCGACGTCG
GGCGTGAAGAGGCTGAGCCTCATGGAGCAGGTGTCGGGAGTCGAGGCCTTCCTGCAGGCCAGCCAGCCCCCGGAC
CCCCACCGCGGCGCCAAGGTCATCCGCGCAGACCCGCAGGGGGGCCGCCGCCGCCACAGTTCCGAGACCTTCTCC
TCCACCACGACGGTCACCCCCGTGTCCCCGTCCTTCGCCCACAACCCCAAGCGCCACAACTCGGCCTCCGTGGAA
AATGTCTCTCTCAGGAAAAGCAGCGAGGGCGGCGTGGGTGTCGGCCCTGGAGGGGGCGACGAGCCGCCCACCTCC
CCACGACAGTTGCAGCCGGCGCCCCCTTTGGCACCGCAGGGCCGGCCGTGGACCCCGGGTCAGCCCGGGGGCTTG
GTCGGTTGTCCTGGGAGCGGTGGATCGCCCATGCGCAGAGAGACCTCTGCCGGCTTCCAGAATGGTCTCAACTAC
ATCGCCATCGACGTGAGGGAGGAGCCCGGGCTGCCACCCCAGCCGCAGCCGCCGCCGCCGCCGCTTCCTCAGCCG
GGAGACAAGAGCTCCTGGGGCCGGACCCGAAGCCTCGGGGGTCTCATCAGCGCTGTGGGCGTCGGCAGCACCGGC
GGCGGGTGCGGGGGGCCGGGTCCCGGTGCCCTGCCCCCTGCCAACACCTACGCCAGCATTGACTTCTTGTCCCAC
CACTTGAAGGAGGCCACCATCGTGAAAGAGTGAAGATCTGTCTGGCTTTATCACCAGGATGTCACATGTCAGAGA
ATATCATTAAAAGAAGACGCTCAGCGCTGTTTCAGCCCGAAGCTGCTTGCAGTTTTCTTTTGGATCTGAGCAATG
ACTGTGTTTGGAAACATCTGTGGACTCTGATAGATGGGGCACAACAAGGCAAGGTCACCTGCCTCTTTCCCTTGT
TCCCGGATGGGCATTCATCATTGTGCTGTTTGCGTTTTGTTTTGTTTTGTTTTAACAAAATTAGCTGAAGAAGTT
ATTCTCAAGAAAATTGGATGTTTTCATTGGCCTTCTTAAATTGTGGCCAGTGTCTTTTAATTTCTTCTTCTTTTC
CTTTTGGCAAAGCAGATATAACCCTCAGCATGCTAGGAGAGTGCACCCGTACCTATGGAAGTGGTAAAATCTGGT
ATTTACTGGCTTACACTCAAAACGACCACAGTCCTACCTCAGTTCAAGGTAAAGCCGGATTTCCGTGGCGGGGGT
CCACAGGACCTCCTGTAGTAGCCCCTGCGCTGTGTGTCTGGAGCGCGTCCTCGCCTTATTTAAATGGTCCAGTAG
ACAGCTGCTTGTTGGATTCCAGTGCAGGTACCTGCGATGTTTACGTCCACACCGAGCCCAGTGTGGGACTGACAT
TTCTCAATGGAAGTGAAATTTGGGATTGGACTTTGAAGACGATTACTAAATAATAATTATTATATGTAACTGAAG
CAACCTACTTTTGAAAATCAACTGTATTGGGTAGTGGGAGGTGGGAGGGAAGGGCTTTGGGAAGGGGATGAATAT
CTCTTTTTACCTTTAACAGACTTGTTTAATCTTCTCGATGTAGATGTTTATGTAGGTACTTCACATTGCAAACGC
CTTTTATTCTATTTACAAGCTCAGATGTCTCTGCTCTCCTGAATCTTGGGCATGCCTTTCTGTAACCAAAAATCC
CTGTAGGCGTGCTAGCAATTCCAGGGTGGTCCGGGTTTGGCAGATTTGATTTTTAAAAAATGTATTATCTTTAAT
AAAAATGTTATTATGTCAACCAGTGAGGCTGCCCTGAACAAAAAAAAACAAAAGAAAAAAAAAAAAGGAAAGA
AAGAAACTGATAAAAAGAGGCATCCAGCCCCTATGTTATTGATGGAAAAAGAAAAGAAGAAAAGCAATCTCGCA
GTACATGTTACTTGTCGAAAAAATTCCGGACAAGACTACCCTTGTTTTATGTTTTCAGTATTCTGAAAATACCAG
TGTGTGGCAGTTCTCGCAGATGTTACCTAAAACTGCTGAACTTGACCGGCAGAATGTTCTGCCGTTTTCTGCTCC
CTCGACACTTGATTGGAGGGCTGTCGACCTCTCCTCCCGTGGGGGCTTCCCCAGTGCCTATCTTCTCTGATAGTC
ATGGAGAGGTTACACTAATTCATTGGAGATGTAAGTTGTTGGTTTTGTTTTGTTTTGTTTTAGAAAAATATATA
TAAATATATAATAGATATCTATCGCTATAGAATAATGCATTAATAAAATGAGGCTTTTTTAGAGGAAGACCAAAA
AATTCAATGTCTTAAAAATATATTTAATGGCAATGCAAAGTCTTCCTGCTTCCGTGCTGAACTTTAGAACAGAG
GATTGTATTGCAAGACAAAGTTGAATGTAAAGTGATCTCCCTGAACATTTTTAAGGTTTTACTTTTCTGAAATTA
TACATCACAGCAGTGCATAGGCCATATAATGTTAGCTGGAAGGTCAATTTCAGTGTATGATATACTTTATTAAGA
TGTATAAAACATCCTGAAGTTTTTATTTAGTTTTGGGAATAGGCATCAGTGGGTGGTATTTGCTTTGTAACTCCC
CCCAGGTACGATAGGGACTGAATATGGACCCTGCTGAAAGCAGTGTATTGACGCATATTTAACTCGCCCTCTATC
CGTAGAGTAGTCATGACACTATACAGATGGTTCGTGTTCATACTGCAGCTTAAAACAAGCAAATACACAGATGA
TAATATGCTAAATTTTCCTCTATCCTGTACATTTCACAAAAAGGCATATGCAATATTTACATTTTTAATTTAGTT
TACAGAATGGAACCAAAATGTATAAATGTTATGTTTGCTAAAACTTCACAATGTATATTGGGTCTTTGTACATTT
TGCCTGACTTACCTTAAATTTAAAATATTTTTTGCTATATAAACTTTAACAGTTATTAAACAGTGTTTTCCTTTT
GGGTACGTATTGTTTCTGGATATCAAGATGTTAAATATATTTCTTGCTATTGTGATATGACAAGAGACTTAACTT
ATCTTGCTCTGTCTTCCACTGTACACGCTGTATATAGGGGTCAATGTGATGCTGCTGGAGACGAGAATAAACTGG
ACTAGAATAGTGCATTGTATTTAGTCTGTATTGATCATGGATGCCCTCCTTAATAGCCATATGCAATAAAATAAA
GTACATTATTTATGAAATGAA
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FIGURE 1397

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MASPPRHGPPGPASGDGPNLNNNNNNNNNNHSVRKCGYLRNEEHGHKRFFVLRGPGAGGDEATAGGGSAPQPPRLE
YYESEKKWRSKAGAPKRVIALDCCLNINKRADAKHKYLIALYTKDEYFAVAAENEQEQEGWYRALTDLVSEGRAA
AGDAPPAAAPAASCSASLPGALGGSAGAAGAEDSYGLVAPATAAYREVWQVNLKPKGLGQSKNLTGVYRLCLSAR
TIGFVKLNCEQPSVTLQLMNIRRCGHSDSFFFIEVGRSAVTGPGELWMQADDSVVAQNIHETILEAMKALKELFE
FRPRSKSQSSGSSATHPISVPGARRHHHLVNLPPSQTGLVRRSRTDSLAATPPAAKCSSCRVRTASEGDGGRAAG
AAAAAQRLVSVAGSPLSPGPVRAPLSRSHTLSGGCGGRGSKVALLPAGGALQHSRSMSMPVAHSPPAATSPGSLS
SSSGHGSGSYPPPPGPHPPLPHPLHHGPGQRPSSGSASASGSPSDPGFMSLDEYGSSPGDLRAFCSHRSNTPESI
AETPPARDGGGGGEFYGYMTMDRPLSHCGRSYRRVSGDAAQDLDRGLRKRTYSLTTPARQRPVPQPSSASLDEYT
LMRATFSGSAGRLCPSCPASSPKVAYHPYPEDYGDIEIGSHRSSSSNLGADDGYMPMTPGAAFAGSGSGSCRSDD
YMPMSPASVSAPKQILQPRAAAAAAAAVPSAGPAGPAPTSAAGRTFPASGGGYKASSPAESSPEDSGYMRMWCGS
KLSMEHADGKLLPNGDYLNVSPSDAVTTGTPPDFFSAALHPGGEPLRGVPGCCYSSLPRSYKAPYTCGGDSDQYV
LMSSPVGRILEEERLEPQATPGPSQAASAFGAGPTQPPHPVVPSPVRRSGRRSGFLGQRGRAVRPTRLSLEGLPS
LPSMHEYPLPPEPKSPGEYINIDFGEPGARLSPPAPPLLASAASSSSLLSASSPASSLGSGTPGTSSDSRQRSPL
SDYMNLDFSSPKSPKPGAPSGHPVGSLDGLLSPEASSPYPPLPPRPSASPSSSLQPPPPPPAPGELYRLPPASAV
ATAQGPGAASSLSSDTGDNGDYTEMAFGVAATPPQPIAAPPKPEAARVASPTSGVKRLSLMEQVSGVEAFLQASQ
PPDPHRGAKVIRADPQGGRRRHSSETFSSTTTVTPVSPSFAHNPKRHNSASVENVSLRKSSEGGVGVGPGGGDEP
PTSPRQLQPAPPLAPQGRPWTPGQPGGLVGCPGSGGSPMRRETSAGFQNGLNYIAIDVREEPGLPPQPQPPPPPL
PQPGDKSSWGRTRSLGGLISAVGVGSTGGGCGGPGPGALPPANTYASIDFLSHHLKEATIVKE
```

FIGURE 1398A

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GGGTGATTCAGCGCCCGGCGAGGCGGAACGGGCCGCAAGAGGAGGAGGGGAGAGCCCGTCCGCGCCTGGGCTCCC
GGGGTGGCACGAGCCCGCGGCCGGAGTGCGAGGCGGAGGCGAGGAGGCCGCGGGGACGGGAGGCGAGGCCGGCCG
GGCCCCCGAAGCCATGGAGAACGCGCACACCAAGACGGTGGAGGAGGTGCTGGGCCACTTCGGCGTCAACGAGAG
TACGGGGCTGAGCCTGGAACAGGTCAAGAAGCTTAAGGAGAGATGGGGCTCCAACGAGTTACCGGCTGAAGAAGG
AAAAACCTTGCTGGAACTTGTGATTGAGCAGTTTGAAGACTTGCTAGTTAGGATTTTATTACTGGCAGCATGTAT
ATCTTTTGTTTTGGCTTGGTTTGAAGAAGGTGAAGAAACAATTACAGCCTTTGTAGAACCTTTTGTAATTTTACT
CATATTAGTAGCCAATGCAATTGTGGGTGTATGGCAGGAAAGAAATGCTGAAAATGCCATCGAAGCCCTTAAGGA
ATATGAGCCTGAAATGGGCAAAGTGTATCGACAGGACAGAAGAGTGTGCAGCGGATTAAAGCTAAAGACATAGT
TCCTGGTGATATTGTAGAAATTGCTGTTGGTGACAAAGTTCCTGCTGATATAAGGTTAACTTCCATCAAATCTAC
CACACTAAGAGTTGACCAGTCAATTCTCACAGGTGAATCTGTCTCTGTCATCAAGCACACTGATCCCGTCCCTGA
CCCACGAGCTGTCAACCAAGATAAAAAGAACATGCTGTTTTCTGGTACAAACATTGCTGCTGGGAAAGCTATGGG
AGTGGTGGTAGCAACTGGAGTTAACACCGAAATTGGCAAGATCCGGGATGAAATGGTGGCAACAGAACAGGAGAG
AACACCCCTTCAGCAAAAACTAGATGAATTTGGGGAACAGCTTTCCAAAGTCATCTCCCTTATTTGCATTGCAGT
CTGGATCATAAATATTGGGCACTTCAATGACCCGGTTCATGGAGGGTCCTGGATCAGAGGTGCTATTTACTACTT
TAAAAATTGCAGTGGCCCTGGCTGTAGCAGCCATTCCTGAAGGTCTGCCTGCAGTCATCACCACCTGCCTGGCTCT
TGGAACTCGCAGAATGGCAAAGAAAAATGCCATTGTTCGAAGCCTCCCGTCTGTGGAAACCCTTGGTTGTACTTC
TGTTATCTGCTCAGACAAGACTGGTACACTTACAACAAACCAGATGTCAGTCTGCAGGATGTTCATTCTGGACAG
AGTGGAAGGTGATACTTGTTCCCTTAATGAGTTTACCATAACTGGATCAACTTATGCACCTATTGGAGAAGTGCA
TAAAGATGATAAACCAGTGAATTGTCACCAGTATGATGGTCTGGTAGAATTAGCAACAATTTGTGCTCTTTGTAA
TGACTCTGCTTTGGATTACAATGAGGCAAAGGGTGTGTATGAAAAAGTTGGAGAAGCTACAGAGACTGCTCTCAC
TTGCCTAGTAGAGAAGATGAATGTATTTGATACCGAATTGAAGGGTCTTTCTAAAATAGAACGTGCAAATGCCTG
CAACTCAGTCATTAAACAGCTGATGAAAAAGGAATTCACTCTAGAGTTTTCACGTGACAGAAAGTCAATGTCGGT
TTACTGTACACCAAATAAACCAAGCAGGACATCAATGAGCAAGATGTTTGTGAAGGGTGCTCCTGAAGGTGTCAT
TGACAGGTGCACCCACATTCGAGTTGGAAGTACTAAGGTTCCTATGACCTCTGGAGTCAAACAGAAGATCATGTC
TGTCATTCGAGAGTGGGGTAGTGGCAGCGACACACTGCGATGCCTGGCCCTGGCCACTCATGACAACCCACTGAG
AAGAGAAGAAATGCACCTTGAGGACTCTGCCAACTTTATTAAATATGAGACCAATCTGACCTTCGTTGGCTGCGT
GGGCATGCTGGATCCTCCGAGAATCGAGGTGGCCTCCTCCGTGAAGCTGTGCCGGCAAGCAGGCATCCGGGTCAT
CATGATCACTGGGGACAACAAGGGCACTGCTGTGGCCATCTGTCGCCGCATCGGCATCTTCGGGCAGGATGAGGA
CGTGACGTCAAAAGCTTTCACAGGCCGGGAGTTTGATGAACTCAACCCCTCCGCCCAGCGAGACGCCTGCCTGAA
CGCCCGCTGTTTTGCTCGAGTTGAACCCTCCCACAAGTCTAAAATCGTAGAATTTCTTCAGTCTTTTGATGAGAT
TACAGCTATGACTGGCGATGGCGTGAACGATGCTCCTGCTCTGAAGAAAGCCGAGATTGGCATTGCTATGGGCTC
TGGCACTGCGGTGGCTAAAACCGCCTCTGAGATGGTCCTGGCGGATGACAACTTCTCCACCATTGTGGCTGCCGT
TGAGGAGGGGCGGGCAATCTACAACAACATGAAACAGTTCATCCGCTACCTCATCTCGTCCAACGTCGGGGAAGT
TGTCTGTATTTTCCTGACAGCAGCCCTTGGATTTCCCGAGGCTTTGATTCCTGTTCAGCTGCTCTGGGTCAATCT
GGTGACAGATGGCCTGCCTGCCACTGCACTGGGGTTCAACCCTCCTGATCTGGACATCATGAATAAACCTCCCCG
GAACCCAAAGGAACCATTGATCAGCGGGTGGCTCTTTTTCCGTTACTTGGCTATTGGCTGTTACGTCGGCGCTGC
TACCGTGGGTGCTGCTGCATGGTGGTTCATTGCTGCTGACGGTGGTCCAAGAGTGTCCTTCTACCAGCTGAGTCA
TTTCCTACAGTGTAAAGAGGACAACCCGGACTTTGAAGGCGTGGATTGTGCAATCTTTGAATCCCCATACCCGAT
GACAATGGCGCTCTCTGTTCTAGTAACTATAGAAATGTGTAACGCCCTCAACAGCTTGTCCGAAAACCAGTCCTT
GCTGAGGATGCCCCCCTGGGAGAACATCTGGCTCGTGGGCTCCATCTGCCTGTCCATGTCACTCCACTTCCTGAT
CCTCTATGTCGAACCCTTGCCACTCATCTTCCAGATCACACCGCTGAACGTGACCCAGTGGCTGATGGTGCTGAA
AATCTCCTTGCCCGTGATTCTCATGGATGAGACGCTCAAGTTTGTGGCCCGCAACTACCTGGAACCTGGTAAAGA
GTGTGTGCAGCCTGCCACCAAATCCTGCTCGTTCTCGGCATGCACCGATGGGATTTCCTGGCCGTTTGTGCTGCT
CATAATGCCCCTGGTGATCTGGGTCTATAGCACAGACACTAACTTTAGCGATATGTTCTGGTCTTGACTGACAGT
TTTCCATAAAGAAGATGTTTAACTTAATCAATTAATTTTTTTATTGTTTAAAGCAACTGTCTATTTCTGCTGAAT
TTTCACATGAACATACTGGCTGGTGATGGAGGTTTCATACTCTAGATTTTGTTTTGCTTTTTCTGACTCCAGTGG
GGCAAGATTTTCCTTTTTTATACACATAATTAAAGTGTCCATTGACATGTACAGAGAACTAACACTATTTTATGC
AAATATTTTTTTGTAGATGAAAAAGCATGTACAGTGTTCTGTTTAATACTCATCCTTGTATAAAAAAAATAGTTG
```

FIGURE 1398B

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AGCCAGCAGACATTGTCAGCAAATTAATTGGCAGCAGATTTTAGGAAATGAATGTGTGTGGTTTTTTTTCTAAAA
CTAAATAGCATGTATTGTGTCTTTTGCATGATGATCCGGATTTAATTTGATATCACAGTCTAATTTTTATTCATA
AGCCAATTTTTCTGCACTGAGCAGAGTCTTGCTACCTCAGTCAGTATTGTTTTGGTTTGCTACTTCCCTCACCCA
CTTTGGCCTCCGTTCACCCCACCCCACCCCACCTCTCCCCACCTTACCCCCGCCCCGCTTGGCTTCTTCTTTAGG
ATTGTGATGGTTCGTTCTGTTTACATCAGTTTTAACGAGAGGTATGCCTGTACTCGCTTGTGCAGAAAACATTGT
TCCAGATTCAATCGACTGGGTTTATGTCCCTTCACATAGTTTTAAGGTTATTTATTTAAATGTCTAATGTATTT
TATTGTAACAGACATTGTTTTGCCAACATTGCCTATTTCAGTGGCACGTCATCTAGTTTTAAAAAAATAAAACAT
TTTAAAAAG
```

FIGURE 1399

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MENAHTKTVEEVLGHFGVNESTGLSLEQVKKLKERWGSNELPAEEGKTLLELVIEQFEDLLVRILLLAACISFVL
AWFEEGEETITAFVEPFVILLILVANAIVGVWQERNAENAIEALKEYEPEMGKVYRQDRKSVQRIKAKDIVPGDI
VEIAVGDKVPADIRLTSIKSTTLRVDQSILTGESVSVIKHTDPVPDPRAVNQDKKNMLFSGTNIAAGKAMGVVVA
TGVNTEIGKIRDEMVATEQERTPLQQKLDEFGEQLSKVISLICIAVWIINIGHFNDPVHGGSWIRGAIYYFKIAV
ALAVAAIPEGLPAVITTCLALGTRRMAKKNAIVRSLPSVETLGCTSVICSDKTGTLTTNQMSVCRMFILDRVEGD
TCSLNEFTITGSTYAPIGEVHKDDKPVNCHQYDGLVELATICALCNDSALDYNEAKGVYEKVGEATETALTCLVE
KMNVFDTELKGLSKIERANACNSVIKQLMKKEFTLEFSRDRKSMSVYCTPNKPSRTSMSKMFVKGAPEGVIDRCT
HIRVGSTKVPMTSGVKQKIMSVIREWGSGSDTLRCLALATHDNPLRREEMHLEDSANFIKYETNLTFVGCVGMLD
PPRIEVASSVKLCRQAGIRVIMITGDNKGTAVAICRRIGIFGQDEDVTSKAFTGREFDELNPSAQRDACLNARCF
ARVEPSHKSKIVEFLQSFDEITAMTGDGVNDAPALKKAEIGIAMGSGTAVAKTASEMVLADDNFSTIVAAVEEGR
AIYNNMKQFIRYLISSNVGEVVCIFLTAALGFPEALIPVQLLWVNLVTDGLPATALGFNPPDLDIMNKPPRNPKE
PLISGWLFFRYLAIGCYVGAATVGAAAWWFIAADGGPRVSFYQLSHFLQCKEDNPDFEGVDCAIFESPYPMTMAL
SVLVTIEMCNALNSLSENQSLLRMPPWENIWLVGSICLSMSLHFLILYVEPLPLIFQITPLNVTQWLMVLKISLP
VILMDETLKFVARNYLEPGKECVQPATKSCSFSACTDGISWPFVLLIMPLVIWVYSTDTNFSDMFWS
```

FIGURE 1400

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AACCGCATCTGCAGCGAGCAACTGAGAAGCCAAGACTGAGCCGGCGGCCGCGGCGCAGCGAACGAGCAGTGACCG
TGCTCCTACCCAGCTCTGCTTCACAGCGCCCACCTGTCTCCGCCCCTCGGCCCCTCGCCCGGCTTTGCCTAACCG
CCACGATGATGTTCTCGGGCTTCAACGCAGACTACGAGGCGTCATCCTCCCGCTGCAGCAGCGCGTCCCCGGCCG
GGGATAGCCTCTCTTACTACCACTCACCCGCAGACTCCTTCTCCAGCATGGGCTCGCCTGTCAACGCGCAGGACT
TCTGCACGGACCTGGCCGTCTCCAGTGCCAACTTCATTCCCACGGTCACTGCCATCTCGACCAGTCCGGACCTGC
AGTGGCTGGTGCAGCCCGCCCTCGTCTCCTCTGTGGCCCCATCGCAGACCAGAGCCCCTCACCCTTTCGGAGTCC
CCGCCCCCTCCGCTGGGGCTTACTCCAGGGCTGGCGTTGTGAAGACCATGACAGGAGGCCGAGCGCAGAGCATTG
GCAGGAGGGGCAAGGTGGAACAGTTATCTCCAGAAGAAGAAGAGAAAAGGAGAATCCGAAGGGAAAGGAATAAGA
TGGCTGCAGCCAAATGCCGCAACCGGAGGAGGGAGCTGACTGATACACTCCAAGCGGAGACAGACCAACTAGAAG
ATGAGAAGTCTGCTTTGCAGACCGAGATTGCCAACCTGCTGAAGGAGAAGGAAAAACTAGAGTTCATCCTGGCAG
CTCACCGACCTGCCTGCAAGATCCCTGATGACCTGGGCTTCCCAGAAGAGATGTCTGTGGCTTCCCTTGATCTGA
CTGGGGGCCTGCCAGAGGTTGCCACCCCGGAGTCTGAGGAGGCCTTCACCCTGCCTCTCCTCAATGACCCTGAGC
CCAAGCCCTCAGTGGAACCTGTCAAGAGCATCAGCAGCATGGAGCTGAAGACCGAGCCCTTTGATGACTTCCTGT
TCCCAGCATCATCCAGGCCCAGTGGCTCTGAGACAGCCCGCTCCGTGCCAGACATGGACCTATCTGGGTCCTTCT
ATGCAGCAGACTGGGAGCCTCTGCACAGTGGCTCCCTGGGGATGGGGCCCATGGCCACAGAGCTGGAGCCCCTGT
GCACTCCGGTGGTCACCTGTACTCCCAGCTGCACTGCTTACACGTCTTCCTTCGTCTTCACCTACCCCGAGGCTG
ACTCCTTCCCCAGCTGTGCAGCTGCCCACCGCAAGGGCAGCAGCAGCAATGAGCCTTCCTCTGACTCGCTCAGCT
CACCCACGCTGCTGGCCCTGTGAGGGGGCAGGGAAGGGGAGGCAGCCGGCACCCACAAGTGCCACTGCCCGAGCT
GGTGCATTACAGAGAGGAGAAACACATCTTCCCTAGAGGGTTCCTGTAGACCTAGGGAGGACCTTATCTGTGCGT
GAAACACACCAGGCTGTGGGCCTCAAGGACTTGAAAGCATCCATGTGTGGACTCAAGTCCTTACCTCTTCCGGAG
ATGTAGCAAAACGCATGGAGTGTGTATTGTTCCCAGTGACACTTCAGAGAGCTGGTAGTTAGTAGCATGTTGAGC
CAGGCCTGGGTCTGTGTCTCTTTTCTCTTTCTCCTTAGTCTTCTCATAGCATTAACTAATCTATTGGGTTCATTA
TTGGAATTAACCTGGTGCTGGATATTTTCAAATTGTATCTAGTGCAGCTGATTTAACAATAACTACTGTGTTCC
TGGCAATAGTGTGTTCTGATTAGAAATGACCAATATTATACTAAGAAAAGATACGACTTTATTTTCTGGTAGATA
GAAATAAATAGCTATATCCATGTACTGTAGTTTTTCTTCAACATCAATGTTCATTGTAATGTTACTGATCATGCA
TTGTTGAGGTGGTCTGAATGTTCTGACATTAACAGTTTTCCATGAAAACGTTTTATTGTGTTTTAATTTATTTA
TTAAGATGGATTCTCAGATATTTATATTTTTATTTTATTTTTTCTACCTTGAGGTCTTTTGACATGTGGAAAGT
GAATTTGAATGAAAAATTTAAGCATTGTTTGCTTATTGTTCCAAGACATTGTCAATAAA
```

FIGURE 1401

MMFSGFNADYEASSSRCSSASPAGDSLSYYHSPADSFSSMGSPVNAQDFCTDLAVSSANFIPTVTAISTSPDLQW
LVQPALVSSVAPSQTRAPHPFGVPAPSAGAYSRAGVVKTMTGGRAQSIGRRGKVEQLSPEEEEKRRIRRERNKMA
AAKCRNRRRELTDTLQAETDQLEDEKSALQTEIANLLKEKEKLEFILAAHRPACKIPDDLGFPEEMSVASLDLTG
GLPEVATPESEEAFTLPLLNDPEPKPSVEPVKSISSMELKTEPFDDFLFPASSRPSGSETARSVPDMDLSGSFYA
ADWEPLHSGSLGMGPMATELEPLCTPVVTCTPSCTAYTSSFVFTYPEADSFPSCAAAHRKGSSSNEPSSDSLSSP
TLLAL

FIGURE 1402

GGGCACGAGGGCAGAGCCAGTTCCTAGCGCAGAGCCGCGCCCGCC**ATG**AGGGAGATCGTGCACATCCAGGCGGGC
CAGTGCGGGAACCAGATCGGCACCAAGTTTTGGGAAGTGATCAGCGATGAGCACGGCATCGACCCGGCCGGAGGC
TACGTGGGAGACTCGGCGCTGCAGCTGGAGAGAATCAACGTCTACTACAATGAGTCATCGTCTCAGAAATATGTG
CCCAGGGCCGCCCTGGTGGACTTAGAGCCAGGCACCATGGACAGCGTGCGGTCTGGGCCTTTTGGGCAGCTTTTC
CGGCCTGACAACTTCATCTTTGGCCAGACGGGTGCAGGGAACAACTGGGCGAAAGGGCACTACACGGAGGGCGCG
GAGCTGGTGGACGCAGTGCTGGACGTGGTGCGGAAGGAGTGCGAGCACTGCGACTGCCTGCAGGGCTTCCAGCTC
ACGCACTCGCTGGGCGGCGGCACGGGCTCAGGCATGGGCACGCTGCTCATCAGCAAGATCCGTGAGGAGTTCCCG
GACCGCATCATGAACACCTTCAGCGTCATGCCCTCGCCCAAGGTGTCGGACACGGTGGTGGAGCCCTACAATGCC
ACACTGTCGGTGCACCAGCTGGTGGAGAATACAGACGAGACCTACTGCATCGACAACGAGGCGCTCTATGACATC
TGCTTCCGCACTCTGAAGCTGACAACGCCCACCTACGGGGACCTCAACCACCTGGTGTCCGCCACCATGAGTGGG
GTCACCACCTCGCTGCGCTTCCCGGGCCAGCTCAATGCTGACCTGCGCAAGCTGGCGGTGAACATGGTGCCCTTC
CCGCGCCTGCACTTCTTCATGCCTGGCTTCGCGCCGCTCACCAGCCGCGGCAGCCAGCAGTACCGGGCCCTGACC
GTGCCCGAGCTCACCCAGCAGATGTTCGACGCCAGGAACATGATGGCCGCCTGCGATCCGCGCCATGGCCGCTAC
CTGACCGTGGCCACCGTGTTCCGCGGGCCCATGTCCATGAAGGAGGTGGACGAGCAGATGCTGGCCATCCAGAGT
AAGAACAGCAGCTACTTCGTGGAGTGGATTCCCAACAACGTGAAGGTGGCCGTGTGCGACATCCCGCCCCGCGGC
CTGAAGATGGCCTCCACCTTCATCGGCAACAGCACGGCCATCCAGGAGCTGTTCAAGCGCATCTCCGAGCAGTTC
TCAGCCATGTTCCGGCGCAAGGCCTTCCTGCACTGGTTCACGGGTGAGGGCATGGATGAAATGGAGTTCACCGAG
GCGGAGAGCAACATGAACGACCTGGTATCCGAGTACCAGCAGTACCAGGATGCCACCGCCAATGACGGGGAGGAA
GCTTTTGAGGATGAGGAAGAGGAGATCGATGGA**TAG**TCGGAATAGAGCCGCCCCAACTCAGATCCTACAACACGC
AAGTTCCTTCTTGAACCCTGGTGCCTCCTACCCTATGGCCCTGAATGGTGCACTGGTTTAATTGTGTTGGTGTCG
GCCCCTCACAAATGCAGCCAAGTCATGTAATTAGTCATCTGGAACAAAGACTAAAAACAGCAGAGAATTGCGGGT
TCTACCCAGTCAGAAGATCACACCATGGAGACTTTCTACTAGAGGACTTGAAAGAGAACTGAGGGGCCACAAAAT
AAACTTCACCTTCCATTAAGTGTTCAAGCATGTCTGCAAATTAGGAGGGAGTTAGAAACAGTCTTTTTCATCCTT
TGTGATGAAGCCTGAAATTGTGCCGTGTTGCCTTATATGAATATCAGTATGGGACTTTGAAATAATGATTCATA
ATAAAATACTAAACGTGTGTCTTCAAAAAAAAAAAAAAAAAAAA

FIGURE 1403

MREIVHIQAGQCGNQIGTKFWEVISDEHGIDPAGGYVGDSALQLERINVYYNESSSQKYVPRAALVDLEPGTMDS
VRSGPFGQLFRPDNFIFGQTGAGNNWAKGHYTEGAELVDAVLDVVRKECEHCDCLQGFQLTHSLGGGTGSGMGTL
LISKIREEFPDRIMNTFSVMPSPKVSDTVVEPYNATLSVHQLVENTDETYCIDNEALYDICFRTLKLTTPTYGDL
NHLVSATMSGVTTSLRFPGQLNADLRKLAVNMVPFPRLHFFMPGFAPLTSRGSQQYRALTVPELTQQMFDARNMM
AACDPRHGRYLTVATVFRGPMSMKEVDEQMLAIQSKNSSYFVEWIPNNVKVAVCDIPPRGLKMASTFIGNSTAIQ
ELFKRISEQFSAMFRRKAFLHWFTGEGMDEMEFTEAESNMNDLVSEYQQYQDATANDGEEAFEDEEEEIDG

FIGURE 1404

GAGGAGGCCCGAGAGGAGTCGGTGGCAGCGGCGGCGGCGGGACCGGCAGCAGCAGCAGCAGCAGCAGCAACC
ACTAGCCTCCTGCCCCGCGGCGTTGCGACGAGCCCCACGAGCCGCTCACCCCGCCGTTCTCAGCGCTGCCCGACC
CCGCTGGCGCGCCTCCCGCCGCAGTCCCGGCAGCGCCTCAGTTGTCCTCCGACTCGCCCTCGGCCTTCGCGCAGC
GCAGCACAGCCGCACGCACCGCAGCACAGCACAGCACAGCCCAGGCATAGCTTCGGCACAGCCCCGGCTCCGGCT
CCTGCGGCAGCTCCTCTGGCACGTCCCTGCGCCGACATTCTGGAGGTTGG**ATG**CTCTTGTCCAAAATCAACTCGC
TTGCCCACCTGCGCGCCGCGCCCTGCAACGACCTGCACGCCACCAAGCTGGCGCCCGGCAAGGAGAAGGAGCCCC
TGGAGTCGCAGTACCAGGTGGGCCCGCTACTGGGCAGCGGCGGCTTCGGCTCGGTCTACTCAGGCATCCGCGTCT
CCGACAACTTGCCGGTGGCCATCAAACACGTGGAGAAGGACCGGATTTCCGACTGGGGAGAGCTGCCTAATGGCA
CTCGAGTGCCCATGGAAGTGGTCCTGCTGAAGAAGGTGAGCTCGGGTTTCTCCGGCGTCATTAGGCTCCTGGACT
GGTTCGAGAGGCCCGACAGTTTCGTCCTGATCCTGGAGAGGCCCGAGCCGGTGCAAGATCTCTTCGACTTCATCA
CGGAAAGGGGAGCCCTGCAAGAGGAGCTGGCCCGCAGCTTCTTCTGGCAGGTGCTGGAGGCCGTGCGGCACTGCC
ACAACTGCGGGGTGCTACACCGCGACATCAAGGACGAAAACATCCTTATCGACCTCAATCGCGGCGAGCTCAAGC
TCATCGACTTCGGGTCGGGGGCGCTGCTCAAGGACACCGTCTACACGGACTTCGATGGGACCCGAGTGTATAGCC
CTCCAGAGTGGATCCGCTACCATCGCTACCATGGCAGGTCGGCGGCAGTCTGGTCCCTGGGGATCCTGCTGTATG
ATATGGTGTGTGGAGATATTCCTTTCGAGCATGACGAAGAGATCATCAGGGGCCAGGTTTTCTTCAGGCAGAGGG
TCTCTTCAGAATGTCAGCATCTCATTAGATGGTGCTTGGCCCTGAGACCATCAGATAGGCCAACCTTCGAAGAAA
TCCAGAACCATCCATGGATGCAAGATGTTCTCCTGCCCCAGGAAACTGCTGAGATCCACCTCCACAGCCTGTCGC
CGGGGGCCCAGCAAA**TAG**CAGCCTTTCTGGCAGGTCCTCCCCTCTCTTGTCAGATGCCCGAGGGAGGGGAAGCTTC
TGTCTCCAGCTTCCCGAGTACCAGTGACACGTCTCGCCAAGCAGGACAGTGCTTGATACAGGAACAACATTTACA
ACTCATTCCAGATCCCAGGCCCCTGGAGGCTGCCTCCCAACAGTGGGGAAGAGTGACTCTCCAGGGGTCCTAGGC
CTCAACTCCTCCCATAGATACTCTCTTCTTCTCATAGGTGTCCAGCATTGCTGGACTCTGAAATATCCCGGGGGGT
GGGGGGTGGGGGTGGGCAGAACCCTGCCAATGGAACTCTTTCTTCATCATGAGTTCTGCTGAATGCCGCGATGGG
TCAGGTAGGGGGGAAACAGGTTGGGATGGGATAGGACTAGCACATTTAAGTCCCTGTCACCTCTTCCGACTCTT
TCTGAGTGCCTTCTGTGGGGACTCCGGCTGTGCTGGGAGAAATACTTGAACTTGCCTCTTTTACCTGCTGCTTCT
CCAAAAATCTGCCTGGGTTTTGTTCCCTATTTTTCTCTCCTGTCCTCCCTCACCCCCTCCTTCATATGAAAGGTG
CCATGGAAGAGGCTACAGGGCCAAACGCTGAGCCACCTGCCCTTTTTTCTGCCTCCTTTAGTAAAACTCCGAGTG
AACTGGTCTTCCTTTTTGGTTTTTACTTAACTGTTTCAAAGCCAAGACCTCACACACACAAAAAAATGCACAAAC
CAAGCAATCAACAGAAAAGCTGTAAATGTGTGTACAGTTGGCATGGTAGTATACAAAAAGATTGTAGTGGATCTA
ATTTTTAAGAAATTTTGCCTTTAAGTTATTTTACCTGTTTTTGTTTCTTGTTTTGAAAGATGCGCATTCTAACCT
GGAGGTCAATGTTATGTATTTATTTATTTATTTATTTGGTTCCCTTCCTATTCCAAGCTTCCATAGCTGCTGCCC
TAGTTTTCTTTCCTCCTTTCCTCCTCTGACTTGGGGACCTTTTGGGGGAGGGCTGCGACGCTTGCTCTGTTTGTG
GGGTGACGGGACTCAGGCGGGACAGTGCTGCAGCTCCCTGGCTTCTGTGGGGCCCCTCACCTACTTACCCAGGTG
GGTCCCGGCTCTGTGGGTGATGGGAGGGGCCATTGCTGACTGTGTATATAGGATAATTATGAAACACAGTTCTGG
ATGGTGTGCCTTCCAGATCCTCTCTGGGGCTGTGTTTTGAGCAGCAGGTAGCCTGCTGGTTTTATCTGAGTGAAA
TACTGTACAGGGGAATAAAAGAGATCTTATTTTTTTTTATACTTGCGTTTGGAATAAAAACCCTTTGGCTTT

1578/2825
FIGURE 1405

MLLSKINSLAHLRAAPCNDLHATKLAPGKEKEPLESQYQVGPLLGSGGFGSVYSGIRVSDNLPVAIKHVEKDRIS
DWGELPNGTRVPMEVVLLKKVSSGFSGVIRLLDWFERPDSFVLILERPEPVQDLFDFITERGALQEELARSFFWQ
VLEAVRHCHNCGVLHRDIKDENILIDLNRGELKLIDFGSGALLKDTVYTDFDGTRVYSPPEWIRYHRYHGRSAAV
WSLGILLYDMVCGDIPFEHDEEIIRGQVFFRQRVSSECQHLIRWCLALRPSDRPTFEEIQNHPWMQDVLLPQETA
EIHLHSLSPGPSK

FIGURE 1406A

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GAATTCCCAGCTCTCTGCTCGCTCTGCTCGCAGTCACAGACACTTGAGCACACGCGTACACCCAGACATCTTCGG
GCTGCTATTGGATTGACTTTGAAGGTTCTGTGTGGGTCGCCGTGGCTGCATGTTTGAATCAGGTGGAGAAGCACT
TCAACGCTGGACGAAGTAAAGATTATTGTTGTTATTTTTTTTTTCTCTCTCTCTCTCTTAAGAAAGGAAAATA
TCCCAAGGACTAATCTGATCGGGTCTTCCTTCATCAGGAACGAATGCAGGAATTTGGGAACTGAGCTGTGCAAGT
GCTGAAGAAGGAGATTTGTTTGGAGGAAACAGGAAAGAGAAAGAAAAGGAAGGAAAAAATACATAATTTCAGGGA
CGAGAGAGAGAAGAAAAACGGGGACTATGGGGAGAAAAAGATTCAGATTACGAGGATTATGGATGAACGTAACA
GACAGGTGACATTTACAAAGAGGAAATTTGGGTTGATGAAGAAGGCTTATGAGCTGAGCGTGCTGTGTGACTGTG
AGATTGCGCTGATCATCTTCAACAGCACCAACAAGCTGTTCCAGTATGCCAGCACCGACATGGACAAAGTGCTTC
TCAAGTACACGGAGTACAACGAGCCGCATGAGAGCCGGACAAACTCAGACATCGTGGAGACGTTGAGAAGAAGG
GCCTTAATGGCTGTGACAGCCCAGACCCCGATGCGGACGATTCCGTAGGTCACAGCCCTGAGTCTGAGGACAAGT
ACAGGAAAATTAACGAAGATATTGATCTAATGATCAGCAGGCAAAGATTGTGTGCTGTTCCACCTCCCAACTTCG
AGATGCCAGTCTCCATCCCAGTGTCCAGCCACAACAGTTTGGTGTACAGCAACCCTGTCAGCTCACTGGGAAACC
CCAACCTATTGCCACTGGCTCACCCTTCTCTGCAGAGGAATAGTATGTCTCCTGGTGTAACACATCGACCTCCAA
GTGCAGGTAACACAGGTGGTCTGATGGGTGGAGACCTCACGTCTGGTGCAGGCACCAGTGCAGGGAACGGGTATG
GCAATCCCCGAAACTCACCAGGTCTGCTGGTCTCACCTGGTAACTTGAACAAGAATATGCAAGCAAATCTCCTC
CCCCAATGAATTTAGGAATGAATAACCGTAAACCAGATCTCCGAGTTCTTATTCCACCAGGCAGCAAGAATACGA
TGCCATCAGTGTCTGAGGATGTCGACCTGCTTTTGAATCAAAGGATAAATAACTCCCAGTCGGCTCAGTCATTGG
CTACCCCAGTGGTTTCCGTAGCAACTCCTACTTTACCAGGACAAGGAATGGGAGGATATCCATCAGCCATTTCAA
CAACATATGGTACCGAGTACTCTCTGAGTAGTGCAGACCTGTCATCTCTGTCTGGGTTTAACACCGCCAGCGCTC
TTCACCTTGGTTCAGTAACTGGCTGGCAACAGCAACACCTACATAACATGCCACCATCTGCCCTCAGTCAGTTGG
GAGCTTGCACTAGCACTCATTTATCTCAGAGTTCAAATCTCTCCCTGCCTTCTACTCAAAGCCTCAACATCAAGT
CAGAACCTGTTTCTCCTCCTAGAGACCGTACCACCACCCCTTCGAGATACCCACAACACACGCGCCACGAGGCGG
GGAGATCTCCTGTTGACAGCTTGAGCAGCTGTAGCAGTTCGTACGACGGGAGCGACCGAGAGGATCACCGGAACG
AATTCCACTCCCCCATTGGACTCACCAGACCTTCGCCGGACGAAAGGGAAAGTCCCTCAGTCAAGCGCATGCGAC
TTTCTGAAGGATGGGCAACATGATCAGATTATTACTTACTAGTTTTTTTTTTTTTCTTGCAGTGTGTGTGTGTGC
TATACCTTAATGGGGAAGGGGGGTCGATATGCATTATATGTGCCGTGTGTGGAAAAAAAAAAAGTCAGGTACTCT
GTTTTGTAAAAGTACTTTTAAATTGCCTCAGTGATACAGTATAAAGATAAACAGAAATGCTGAGATAAGCTTAGC
ACTTGAGTTGTACAACAGAACACTTGTACAAAATAGATTTAAGGCTAACTTCTTTTCACTGTTGTGCTCCTTTG
CAAAATGTATGTTACAATAGATAGTGTCATGTTGCAGGTTCAACGTTATTTACATGTAAATAGACAAAAGGAAAC
ATTTGCCAAAAGCGGCAGATCTTTACTGAAAGAGAGAGCAGCTGTTATGCAACATATAGAAAAATGTATAGATGC
TTGGACAGACCCGGTAATGGGTGGCCATTGGTAAATGTTAGGAACACACCAGGTCACCTGACATCCCAAGAATGC
TCACAAACCTGCAGGCATATCATTGGCGTATGGCACTCATTAAAAAGGATCAGAGACCATTAAAAGAGGACCATA
CCTATTAAAAAAAATGTGGAGTTGGAGGGCTAACATATTTAATTAAATAAATAAATAAATCTGGGTCTGCATCT
CTTATTAAATAAAAATATAAAAATATGTACATTACATTTTGCTTATTTTCATATAAAAGGTAAGACAGAGTTTGC
AAAGCATTTGTGGCTTTTTGTAGTTTACTTAAGCCAAAATGTGTTTTTTTCCCCTTGATAGCTTCGCTAATATTT
TAAACAGTCCTGTAAAAAACCAAAAAGGACTTTTTGTATAGAAAGCACTACCCTAAGCCATGAAGAACTCCATGC
TTTGCTAACCAAGATAACTGTTTTCTCTTTGTAGAAGTTTTGTTTTTGAAATGTGTATTTCTAATTATATAAAT
ATTAAGAATCTTTTAAAAAAATCTGTGAAATTAACATGCTTGTGTATAGCTTTCTAATATATATAATATTATGGT
AATAGCAGAAGTTTTGTTATCTTAATAGCGGGAGGGGGGTATATTTGTGCAGTTGCACATTTGAGTAACTATTTT
CTTTCTGTTTTCTTTTACTCTGCTTACATTTTATAAGTTTAAGGTCAGCTGTCAAAAGGATAACCTGTGGGGTTA
GAACATATCACATTGCAACACCCTAAATTGTTTTAATACATTAGCAATCTATTGGGTCAACTGACATCCATTGT
ATATACTAGTTTCTTTCATGCTATTTTTATTTTGTTTTTGCATTTTTATCAAATGCAGGGCCCCTTTCTGATCT
CACCATTTCACCATGCATCTTGGAATTCAGTAAGTGCATATCCTAACTTGCCCATATTCTAAATCATCTGGTTGG
TTTTCAGCCTAGAATTTGATACGCTTTTTAGAAATATGCCCAGAATAGAAAAGCTATGTTGGGGCACATGTCCTG
CAAATATGGCCCTAGAAACAAGTGATATGGAATTTACTTGGTGAATAAGTTATAAATTCCCACAGAAGAAAAATG
TGAAAGACTGGGTGCTAGACAAGAAGGAAGCAGGTAAAGGGATAGTTGCTTTGTCATCCGTTTTTAATTATTTTA
ACTGACCCTTGACAATCTTGTCAGCAATATAGGACTGTTGAACAATCCCGGTGTGTCAGGACCCCCAAATGTCAC
TTCTGCATAAAGCATGTATGTCATCTATTTTTTCTTCAATAAAGAGATTTAATAGCCATTTCAAGAAATCCCATA
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FIGURE 1406B

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AAGAACCTCTCTATGTCCCTTTTTTTAATTTAAAAAAATGACTCTTGTCTAATATTCGTCTATAAGGGATTAATT
TTCAGACCCTTTAATAAGTGAGTGCCATAAGAAAGTCAATATATATTGTTTAAAAGATATTTCAGTCTAGGAAAG
ATTTTCCTTCTCTTGGAATGTGAAGATCTGTCGATTCATCTCCAATCATATGCATTGACATACACAGCAAAGAAG
ATATAGGCAGTAATATCAACACTGCTATATCATGTGTAGGACATTTCTTATCCATTTTTTCTCTTTTACTTGCAT
AGTTGCTATGTGTTTCTCATTGTAAAAGGCTGCCGCTGGGTGGCAGAAGCCAAGAGACCTTATTAACTAGGCTAT
ATTTTTCTTAACTTGATCTGAAATCCACAATTAGACCACAATGCACCTTTGGTTGTATCCATAAAGGATGCTAGC
CTGCCTTGTACTAATGTTTTATATATT
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FIGURE 1407

MGRKKIQITRIMDERNRQVTFTKRKFGLMKKAYELSVLCDCEIALIIFNSTNKLFQYASTDMDKVLLKYTEYNEP
HESRTNSDIVETLRKKGLNGCDSPDPDADDSVGHSPESEDKYRKINEDIDLMISRQRLCAVPPPNFEMPVSIPVS
SHNSLVYSNPVSSLGNPNLLPLAHPSLQRNSMSPGVTHRPPSAGNTGGLMGGDLTSGAGTSAGNGYGNPRNSPGL
LVSPGNLNKNMQAKSPPPMNLGMNNRKPDLRVLIPPGSKNTMPSVSEDVDLLLNQRINNSQSAQSLATPVVSVAT
PTLPGQGMGGYPSAISTTYGTEYSLSSADLSSLSGFNTASALHLGSVTGWQQQHLHNMPPSALSQLGACTSTHLS
QSSNLSLPSTQSLNIKSEPVSPPRDRTTTPSRYPQHTRHEAGRSPVDSLSSCSSSYDGSDREDHRNEFHSPIGLT
RPSPDERESPSVKRMRLSEGWAT

FIGURE 1408

ATAACGGTCCTAAGGTAGCGATATATATGTTTAAAAGATATTTCAGTCTAGGAAAGATTTTCCTTCTCTTGGAAT
GTGAAGATCTGTCGATTCATCTCCAATCATATGCATTGACATACACAGCAAAGAAGATA**TAG**GCAGTAATATCAA
CACTGCTATATCATGTGTAGGACATTTCTTATCCATTTTTTCTCTTTTACTTGCATAGTTGCTATGTGTTTCTCA
TTGTAAAAGGCTGCCGCTGGGTGGCAGAAGCCAAGAGACCTTATTAACTAGGCTATATTTTTCTTAACTTGATCT
GAAATCCACAATTAGACCACAATGCACCTTGGTTGTATCCATAAAGGATGCTAGCCTGCCTTGTACTAATGNNNN
NNNNNNNNNNNNNNNNNNNTCTATCAACCATTTCATATATATCCCACTACTCAAGGTATCCATGGAACATGAAAG
AATAACATTTATGCAGAGGAAAAACAAAAACATCCCTGAAAATATACACACTCATACACACACGCACAGGGGA
ATAAAATAAGAAAATCATTTTCCTCACCATAGACTTGATCCCATCCTTACAACCCATCCTTCTAACTTGATGTGT
ATAAAATATGCAAACATTTCACAAATGTTCTTTGTCATTTCAAAATACTTTAGTATATCAATATCAGTAGATACC
AGTGGGTGGGAAAGGGTCATTACATGAAAATATGAAGAAATAGCCATATTAGTTTTTTAACCTGCAATTTGCCTC
AGCAACAAAGAAAAAGTGAATTTTTAATGCTGAAGATAAAGTAAGCTAAAGTACCAGCAGAAGCCTTGGCTATTT
ATAGCAGTTCTGACAATAGTTTTATAAGAACATGAAGAGAACAGAATCACTTGAAAATGGATGCCAGTCATCTCT
TGTTCCCACTACTGAATTCTTATAAAGTGGTGGCAAGATAGGGAAGGGATAATCTGAGAATTTTTAAAAGATGAT
TTAATGAGAAGAAGCACAATTTTGATTGTGATGAGTCACTTTCTGTAAACAATCTTGGTCTATCTTTACCCTTAT
ACCTTATCTGTAATTTACCATTTATTGTATTTGCAAAGCTAGTATGGTTTTTAATCACAGTAAATCCTTTGTATT
CCAGACTTTAGGGCAGAGCCCTGAGGGAGTATTATTTTACATAACCCGTCCTAGAGTAACATTTTAGGCAACATT
CTTCATTGCAAGTAAAAGATCCATAAGTGGCATTTTACACGGCTGCGAGTATTGTTATATCTAATCCTATTTTAA
AAGATTTTTGGTAATATGAAGCTTGAATACTGGTAACAGTGATGCAATATACGCAAGCTGCACAACCTGTATATT
GTATGCATTGCTGCGTGGAGGCTGTTTATTTCAACCTTTTTAAAAATTGTGTTTTTTAGTAAAATGGCTTATTTT
TTCCCAAAGGTGGAATTTAGCATTTTGTAATGATGAATATAAAAATACCTGTCATCCCCAGATCATTTAAAAGTT
AACTAAAGTGAGAATGAAAAAACAAAATTCCAAGACACTTTTTAAAAGAATGTCTGCCCTCACACACTTTTATGG
ATTTGTTTTTCTTACATACCCATCTTTTAACTTAGAGATAGCATTTTTTGCCCTCTTTATTTTGTTGTTTGTTTC
TCCAGAGAGTAAACGCTTTGTAGTTCTTTCTTTAAAAAACATTTTTTTTAAAGAAGAAGAAGCCACTTGAACCCT
CAATAAAGGCTGTTGCCTAAGCATGGCATACTTCATCTGTTCTCATTGTGCCATCTGCCGTGATGTCGTCACTT
TTATGGCGTTAATTTCCTGCCACTACAGATCTTTTGAAGATTGCTGGAATACTGGTGTCTGTTAGAATGCTTCAG
ACTACAGATGTAATTAAAGGCTTTTCTTAATATGTTTAACCAAAGATGTGGAGCAATCCAAGCCACATATCTTC
TACATCAAATTTTTCCATTTTGGTTATTTTCATAATCTGGTATTGCATTTTGCCTTCCCTGTTCATACCTCAAAT
TGATTCATACCTCAGTTTAATTCAGAGAGGTCAGTTAAGTGACGGATTCTGTTGTGGTTTGAATGCAGTACCAGT
GTTCTCTTCGAGCAAAGTAGACCTGGGTCACTGTAGGCATAGGACTTGGATTGCTTCAGATGGTTTGCTGTATCA
TTTTTCTTCTTTTTCTTTTCCTGGGGACTTGTTTCCATTAAATGAGAGTAATTAAAATCGCTTGTAAATGAGGGC
ATACAAGCATTTGCAACAAATATTCAAATAGAGGCTCACAGCGGCATAAGCTGGACTTTGTCGCCACTAGATGAC
AAGATGTTATAACTAAGTTAAACCACATCTGTGTATCTCAAGGGACTTAATTCAGCTGTCTGTAGTGAATAAAAG
TGGGAAATTTTCAAAAGTTTCTCCTGCTGGAAATAAGGTATAATTTGTATTTGCAGACAATTCAGTAAAGTTAC
TGGCTTTCTTAGTGATGCAGTGTCCGTGGTGCATTTTTTTAAATTAATGTTTTGCTGTTTAAATTTATTCAATTT
TATTGTGTTTTTTAAAAAGCAGCTTATGCCACAAGCACAAATGAGCTTTCTCAGTTTTCAACTCAAAATATTATA
TGAAAAGATGG

FIGURE 1409

NGPKVAIYMFKRYFSLGKIFLLLECEDLSIHLQSYALTYTAKKI

FIGURE 1410

CAGACTCGAGCAGTCTCTGGAACACGCTGCGGGGCTCCCGGGCCTGAGCCAGGTCTGTTCTCCACGCAGGTGTTC
CGCGCGCCCCGTTCAGCC**ATG**TCGTCCGGCATCCATGTAGCGCTGGTGACTGGAGGCAACAAGGGCATCGGCTTG
GCCATCGTGCGCGACCTGTGCCGGCTGTTCTCGGGGGACGTGGTGCTCACGGCGCGGGACGTGACGCGGGGCCAG
GCGGCCGTACAGCAGCTGCAGGCGGAGGGCCTGAGCCCGCGCTTCCACCAGCTGGACATCGACGATCTGCAGAGC
ATCCGCGCCCTGCGCGACTTCCTGCGCAAGGAGTACGGGGGCCTGGACGTGCTGGTCAACAACGCGGGCATCGCC
TTCAAGGTTGCTGATCCCACACCCTTTCATATTCAAGCTGAAGTGACGATGAAAACAAATTTCTTTGGTACCCGA
GATGTGTGCACAGAATTACTCCCTCTAATAAAACCCCAAGGGAGAGTGGTGAACGTATCTAGCATCATGAGCGTC
AGAGCCCTTAAAAGCTGCAGCCCAGAGCTGCAGCAGAAGTTCCGCAGTGAGACCATCACTGAGGAGGAGCTGGTG
GGGCTCATGAACAAGTTTGTGGAGGATACAAAGAAGGGAGTGCACCAGAAGGAGGGCTGGCCCAGCAGCGCATAC
GGGGTGACGAAGATTGGCGTCACCGTTCTGTCCAGGATCCACGCCAGGAAACTGAGTGAGCAGAGGAAAGGGGAC
AAGATCCTCCTGAATGCCTGCTGCCCAGGGTGGGTGAGAACTGACATGGCGGGACCCAAGGCCACCAAGAGCCCA
GAAGAAGGTGCAGAGACCCCTGTGTACTTGGCCCTTTTGCCCCCAGATGCTGAGGGTCCCCATGGACAATTTGTT
TCAGAGAAGAGAGTTGAACAGTGG**TGA**GCTGGGCTCACAGCTCCATCCATGGGCCCCATTTTGTACCTTGTCCTG
AGTTGGTCCAAAGGGCATTTACAATGTCATAAATATCCTTATATAAGAAAAAAAATGATCTCTTATCAATTAGCA
CTCACTAATGTACTACTAATTGAGCAACCTACGCACTCAGTTGACTACGTAAATCTGTCAGGTCTTTTGTGATTT
CCTCTGATGCAGGAGAGGAAAAATTGTAATTGATGAAAATAATGAATGAAATCAACAGATGAATAAATGGTTCT
TTATAAGTG

FIGURE 1411

MSSGIHVALVTGGNKGIGLAIVRDLCRLFSGDVVLTARDVTRGQAAVQQLQAEGLSPRFHQLDIDDLQSIRALRD
FLRKEYGGLDVLVNNAGIAFKVADPTPFHIQAEVTMKTNFFGTRDVCTELLPLIKPQGRVVNVSSIMSVRALKSC
SPELQQKFRSETITEEELVGLMNKFVEDTKKGVHQKEGWPSSAYGVTKIGVTVLSRIHARKLSEQRKGDKILLNA
CCPGWVRTDMAGPKATKSPEEGAETPVYLALLPPDAEGPHGQFVSEKRVEQW

FIGURE 1412

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CGGGAGGTCAGAAAACCGGGCCGCGGGCGGCACCGACAGCTGGGGCCCGGGTCAGGGACACGCGGAGGTCAGGCC
GGTGAAGGCGGCAGGAAGCTGGAGCACGATCCCAGGAGGAACAATCCTGCACCATGACTCAACAGCCACTTCGAG
GAGTGACCAGCCTGCGTTTCAACCAAGACCAAAGCTGCTTTTGCTGCGCCATGGAGACAGGTGTGCGCATCTACA
ACGTGGAGCCCTTGATGGAGAAGGGGCATCTGGACCACGAGCAGGTGGGCAGCATGGGCTTGGTGGAGATGCTGC
ACCGCTCCAACCTTCTGGCCTTGGTGGGCGGTGGTAGTAGTCCCAAGTTCTCAGAGATCTCAGTGCTGATCTGGG
ACGATGCCCGGGAGGGCAAGGACTCCAAGGAGAAGCTGGTGCTGGAGTTCACCTTCACCAAGCCAGTGCTTTCTG
TGCGCATGCGCCATGACAAGATCGTGATCGTGCTGAAGAACCGCATCTATGTGTACTCCTTCCCCGACAATCCCC
GAAAGCTGTTTGAGTTTGATACCCGGGACAACCCCAAGGGGCTCTGTGACCTCTGCCCCAGCCTGGAGAAGCAAC
TGCTAGTGTTCCCGGGACACAAGTGTGGGAGTCTGCAACTTGTGGACCTGGCGAGCACAAAGCCTGGCACCTCGT
CTGCTCCATTCACGATCAATGCACATCAGAGTGACATAGCCTGTGTGTCTCTAAACCAGCCAGGCACTGTAGTGG
CCTCAGCCTCCCAGAAGGGTACCCTTATTCGCCTCTTTGACACACAATCCAAGGAGAAACTGGTGGAGCTGCGCC
GAGGCACTGACCCTGCCACCCTCTACTGCATTAACTTCAGCCACGACTCCTCCTTCCTCTGCGCTTCCAGTGATA
AGGGTACTGTCCATATCTTTGCTCTCAAGGATACCCGCCTCAACCGCCGCTCCGCGCTGGCTCGCGTGGGCAAGG
TGGGGCCTATGATTGGGCAGTACGTGGACTCTCAGTGGAGCCTGGCGAGCTTCACTGTGCCTGCTGAGTCAGCTT
GCATCTGCGCCTTCGGTCGCAATACTTCCAAGAACGTCAACTCTGTCATTGCCATCTGCGTAGATGGGACCTTCC
ACAAATATGTCTTCACTCCTGATGGAAACTGCAACAGAGAGGCTTTCGACGTGTACCTTGACATCTGTGATGATG
ATGACTTTTAAGGACCCTGGGGGCTGTGCTAGGGACCTGCAGTGGCAGAACTGCAGAGCTGAGCCTTGGCAGTGG
GGCGTGCTTGGAAGCCACCAGCCAGCAAGCATTAATGGGGCTGGTGCCCACTTTCCACTCAGCAGAGCTATGTCT
AAATAAAGAGCTCACTTCCCCCCAGCACTTCTTGATGACTGTGTGCCCCAAGGGCCAGGCCAGAGACCCAGGAAG
GCAGCGACCCCTTGGGATCCCTAACCTGGAGGAAATTGCCAGGGACCCAGAGGGAGTGCCCTAATCCAACCTGGG
GATTTTTTAAAAGCTTCCTAGGAAGAGATGATCTCCGATGTGATGAATACGAATAAAAGGCCCTTAATGGC
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FIGURE 1413

MTQQPLRGVTSLRFNQDQSCFCCAMETGVRIYNVEPLMEKGHLDHEQVGSMGLVEMLHRSNLLALVGGGSSPKFS
EISVLIWDDAREGKDSKEKLVLEFTFTKPVLSVRMRHDKIVIVLKNRIYVYSFPDNPRKLFEFDTRDNPKGLCDL
CPSLEKQLLVFPGHKCGSLQLVDLASTKPGTSSAPFTINAHQSDIACVSLNQPGTVVASASQKGTLIRLFDTQSK
EKLVELRRGTDPATLYCINFSHDSSFLCASSDKGTVHIFALKDTRLNRRSALARVGKVGPMIGQYVDSQWSLASF
TVPAESACICAFGRNTSKNVNSVIAICVDGTFHKYVFTPDGNCNREAFDVYLDICDDDDF

FIGURE 1414

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ACGCCCTATACAACTTGGCTTCACATACTTTTACACTAACTTTATATGATTTTTAAAAACTGGTCTGATCGGACT
TCTCGTCCTGGGACACTGTTTACTGGAGTCTGGCCGGCTCTCCGTGCTCCTCTTGGTACCTCATTTTGGGGAGAA
CCTTAAACCCACTCGAGCAGATAATCTCCGCCTTGACCGGTGCCACCAAAGAAGGGTTGGAACCATGTGGACTTT
TCTGGGCATTGCCACTTTCACCTATTTTTATAAGAAGTTCGGGGACTTCATCACTTTGGCCAACAGGGAGGTCCT
GTTGTGCGTGCTGGTGTTCCTCTCGCTGGGCCTGGTGCTCTCCTACCGCTGTCGCCACCGAAACGGGGGTCTCCT
CGGGCGCCAGCGGAGCGGCTCCCAGTTCGCCCTCTTCTCGGATATTCTCTCAGGCCTGCCTTTCATTGGCTTCTT
CTGGGCCAAATCCCCCCCTGAATCAGAAAATAAGGAGCAGCTCGGGGCCAGGAGGCGCAGAAAAGGAACCAATAT
TTCAGAAACAAGCTTAATAGGAACAGCTGCCTGTACATCAACATCTTCTCAGAATGACCCAGAAGTTATCATCGT
GGGAGCTGGCGTGCTTGGCTCTGCTTTGGTAGCTGTGCTTTCCAGAGATGGAAGAAAGGTGACAGTCATTGAGAG
AGACTTAAAAGAGCCTGACAGAATAGTTGGAGAATTCCTGCAGCCGGGTGGTTATCATGTTCTCAAAGACCTTGG
TCTTGGAGATACAGTGGAAGGTCTTGATGCCCAGGTTGTAAATGGTTACATGATTCATGATCAGGAAAGCAAATC
AGAGGTTCAGATTCCTTACCCTCTGTCAGAAAACAATCAAGTGCAGAGTGGAAGAGCTTTCCATCACGGAAGATT
CATCATGAGTCTCCGGAAAGCAGCTATGGCAGAGCCCAATGCAAAGTTTATTGAAGGTGTTGTGTTACAGTTATT
AGAGGAAGATGATGTTGTGATGGGAGTTCAGTACAAGGATAAAGAGACTGGAGATATCAAGGAACTCCATGCTCC
ACTGACTGTTGTTGCAGATGGGCTTTTCTCCAAGTTCAGGAAAGCCTGGTCTCCAATAAAGTTTCTGTATCATC
TCATTTTGTTGGCTTTCTTATGAAGAATGCACCACAGTTTAAAGCAAATCATGCTGAACTTATTTTAGCTAACCC
GAGTCCAGTTCTCATCTACCGGATTTCATCCAGTGAAACTCGAGTACTTGTTGACATTAGAGGAGAAATGCCAAG
GAATTTAAGAGAATACATGGTTGAAAAAATTTACCCACAAATACCTGATCACCTGAAAGAACCATTCTTAGAAGC
CACTGACAATTCTCATCTGAGGTCCATGCTAGCAAGCTTCCTTCCTCCTTCATCAGTGAAGAAACGAGGTGTTCT
TCTTTTGGGAGACGCATATAATATGAGGCATCCACTTACTGGTGGAGGAATGACTGTTGCTTTTAAAGATATAAA
ACTATGGAGAAACTGCTAAAGGGTATCCCTGACCTTTATGATGATGCAGCTATTTTCGAGGCCAACAAATCATT
TTACTGGGCAAGAAAAACATCTCATTCCTTTGTCGTGAATATCCTTGCTCAGGCTCTTTATGAATTATTTTCTGC
CACAGATGATTCCCTGCATCAACTAAGAAAAGCCTGTTTTCTTTATTTCAAACTTGGTGGCGAATGTGTTGCGGG
TCCTGTTGGGCTGCTTTCTGTATTGTCTCCTAACCCTCTAGCTTTAATTGGACACTTCTTTGCTGTTGCAATCTA
TGCCGTGTATTTTTGCTTTAAGTCAGAACCTTGGATTACAAAACCTCGAGCCCTTCTCAGTAGTAGTGCTGTATT
GTACAAAGCGTGTTCTGTAATATTTCCTCTAATTTACTCAGAAATGAAGTATATGGTTCATTAAGCTTAAAGGGG
AACCATTTGTGAATGAATATTTGGAACTTACCAAGTCCTAAGAGACTTTTGGAAGAGGATATATATAGCATAGTA
CCATACCACTTATAAAGTGGAAACTCTTGGACCAAGATTTGGATTAATTTGTTTTTGAAGTTTTTTGTATATAAA
TATGTAAATACATGCTTTAATTTGCAATTTAAAATGAAGGGGTTAAATAAGTTAGACATTTGAAAGAAATGATTG
TTACCATAAATTAGTGCTAATGCTGAGGAGAACTACAGTTTTTCTTTTGAATTTAGTATTTGAGATGAGTTGTTG
GGACATGCAAATAAAATGAAGAATGAC
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FIGURE 1415

MWTFLGIATFTYFYKKFGDFITLANREVLLCVLVFLSLGLVLSYRCRHRNGGLLGRQRSGSQFALFSDILSGLPF
IGFFWAKSPPESENKEQLGARRRRKGTNISETSLIGTAACTSTSSQNDPEVIIVGAGVLGSALVAVLSRDGRKVT
VIERDLKEPDRIVGEFLQPGGYHVLKDLGLGDTVEGLDAQVVNGYMIHDQESKSEVQIPYPLSENNQVQSGRAFH
HGRFIMSLRKAAMAEPNAKFIEGVVLQLLEEDDVVMGVQYKDKETGDIKELHAPLTVVADGLFSKFRKSLVSNKV
SVSSHFVGFLMKNAPQFKANHAELILANPSPVLIYRISSSETRVLVDIRGEMPRNLREYMVEKIYPQIPDHLKEP
FLEATDNSHLRSMLASFLPPSSVKKRGVLLLGDAYNMRHPLTGGGMTVAFKDIKLWRKLLKGIPDLYDDAAIFEA
NKSFYWARKTSHSFVVNILAQALYELFSATDDSLHQLRKACFLYFKLGGECVAGPVGLLSVLSPNPLALIGHFFA
VAIYAVYFCFKSEPWITKPRALLSSSAVLYKACSVIFPLIYSEMKYMVH

FIGURE 1416

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CAGCCTTATAAGCTGAGGGAGTGGAGAGGCCCGGGGCCAGGAAAGCAGAGACAGACAAAGCGTTAGGAGAAGAAG
AGAGGCAGGGAAGACAAGCCAGGCACGATGGCCACCTTCCCACCAGCAACCAGCGCCCCCAGCAGCCCCCAGGC
CCGGAGGACGAGGACTCCAGCCTGGATGAATCTGACCTCTATAGCCTGGCCCATTCCTACCTCGGAGGTGGAGGC
CGGAAAGGTCGCACCAAGAGAGAAGCTGCTGCCAACACCAACCGCCCCAGCCCTGGCGGGCACGAGAGGAAACTG
GTGACCAAGCTGCAGAATTCAGAGAGGAAGAAGCGAGGGGCACGGCGCTGAGACAGAGCTGGAGATGAGGCCAGA
CCATGGACACTACACCCAGCAATAGAGACGGGACTGCGGAGGAAGGAGGACCCAGGACAGGATCCAGGCCGGCTT
GCCACACCCCCCACCCCTAGGACTTATTCCCGCTGACTGAGTCTCTGAGGGGCTACCAGGAAAGCGCCTCCAACC
CTAGCAAAAGTGCAAGATGGGGAGTGAGAGGCTGGGAATGGAGGGGCAGAGCCAGGAAGATCCCCCAGAAAAGAA
AGCTACAGAAGAAACTGGGGCTCCTCCAGGGTGGCAGCAACAATAAATAGACACGCACGGCAGCCACAGCTTGGG
TGTGTGTTCATCCTTGTTAAAAAAAAAAAAAAAAAAAAAAAAAAA
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FIGURE 1417

MATFPPATSAPQQPPGPEDEDSSLDESDLYSLAHSYLGGGGRKGRTKREAAANTNRPSPGGHERKLVTKLQNSER
KKRGARR

FIGURE 1418A

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CTGAGGAAACTTGGCTGTAACTTCAAAAGAAGATTTGATTCTTTATTTCTGGACTGCATATATATATATAACAAG
GCCATTAAAATGTCGGGAGCCTCAGTGAAGGTGGCTGTCCGGGTAAGGCCCTTCAATTCTCGAGAGACCAGCAAG
GAATCCAAATGCATCATTCAGATGCAAGGCAACTCGACCAGTATTATTAACCCAAAGAATCCAAAGGAAGCTCCA
AAGTCCTTCAGCTTCGACTATTCCTACTGGTCTCATACCTCACCCGAAGATCCCTGTTTTGCATCTCAAAACCGT
GTGTACAATGACATTGGCAAGGAAATGCTCTTACACGCCTTTGAGGGATATAATGTCTGTATTTTTGCCTATGGG
CAGACTGGTGCTGGAAAATCTTATACAATGATGGGTAAACAAGAAGAAAGCCAGGCTGGCATCATTCCACAGTTA
TGTGAAGAACTTTTTGAGAAAATCAATGACAACTGTAATGAAGAAATGTCTTACTCTGTAGAGGTGAGCTACATG
GAAATTTACTGTGAAAGAGTACGAGATTTGCTGAATCCAAAAAACAAGGGTAATTTGCGTGTGCGTGAACACCCA
CTTCTTGGACCCTATGTGGAGGATCTGTCCAAGTTGGCAGTTACTTCCTACACAGACATTGCTGACCTCATGGAT
GCTGGGAACAAAGCCAGGACAGTGGCAGCTACAAACATGAATGAAACAAGTAGCCGTTCCCACGCTGTGTTTACG
ATTGTTTTCACCCAGAAGAAACACGATAATGAGACCAACCTTTCCACTGAGAAGGTCAGTAAAATCAGCTTGGTG
GATCTAGCAGGAAGTGAACGAGCTGATTCAACTGGTGCCAAAGGGACTCGATTAAAGGAAGGAGCAAATATTAAT
AAGTCTCTTACAACTTTGGGCAAAGTCATTTCAGCCTTGGCCGAGGTGGATAACTGCACTAGCAAGAGTAAAAAG
AAGAAGAAACAGATTTTATTCCCTACAGGGATTCTGTACTTACTTGGCTCCTTCGAGAAAATTTAGGTGGCAAT
TCTCGGACTGCAATGGTTGCTGCTCTGAGCCCCGCGGATATCAACTACGATGAGACTTTGAGCACTCTGAGATAT
GCAGATCGTGCAAAACAAATTAAATGCAATGCTGTTATCAATGAGGGCCCCAATGCCAAGCTGGTTCGTGAATTA
AAGGAGGAGGTGACACGGCTGAAGGACCTTCTTCGTGCTCAGGGCCTGGGAGATATTATTGATATTGATCCACTG
ATCGATGATTACTCTGGAAGTGGAAGCAAATATCTGAAAGATTTTCAGAACAATAAGCATAGATACTTGCTAGCC
TCTGAGAATCAACGCCCTGGCCATTTTTCCACAGCATCC**ATG**GGGTCCCTCACTTCATCCCCATCTTCCTGCTCA
CTCAGTAGTCAGGTGGGCTTGACGTCTGTGACCAGTATTCAAGAGAGGATCATGTCTACACCTGGAGGAGAGGAA
GCTATTGAACGTTTAAAGGAATCAGAGAAGATCATTGCTGAGTTGAATGAAACTTGGGAAGAGAAGCTTCGTAAA
ACAGAGGCCATCAGAATGGAGAGAGAGGCTTTGTTGGCTGAGATGGGAGTTGCCATTCGGGAAGATGGAGGAACC
CTAGGGGTTTTCTCACCTAAAAAGACCCCACATCTTGTTAACCTCAATGAAGACCCACTAATGTCTGAGTGCCTA
CTTTATTACATCAAAGATGGAATTACAAGGGTTGGCCAAGCAGATGCTGAGCGGCGCCAGGACATAGTGCTGAGC
GGGGCTCACATTAAAGAAGAGCATTGTATCTTCCGGAGTGAGAGAAGCAACAGCGGGGAAGTTATCGTGACCTTA
GAGCCCTGTGAGCGCTCAGAAACCTACGTAAATGGCAAGAGGGTGTCCCAACCTGTTCAGCTGCGCTCAGGAAAC
CGTATCATCATGGGTAAAAACCATGTTTTCCGCTTTAACCACCCGGAACAAGCACGAGCTGAGCGAGAGAAGACT
CCTTCTGCTGAGACCCCCTCTGAGCCTGTGGACTGGACATTTGCCCAGAGGGAGCTTCTGGAAAAACAAGGAATT
GATATGAAACAAGAGATGGAGAAAAGGCTACAGGAAATGGAGATCTTATACAAAAAGGAGAAGGAAGAAGCAGAT
CTTCTTTTGGAGCAGCAGAGACTGGACTATGAGAGTAAATTGCAGGCCTTGCAGAAGCAGGTTGAAACCCGATCT
CTGGCTGCAGAAACAACTGAAGAGGAGGAAGAAGAAGAAGAAGTTCCTTGGACACAGCATGAATTTGAGTTGGCC
CAATGGGCCTTCCGGAAATGGAAGTCTCATCAGTTTACTTCATTACGGGACTTACTCTGGGCAATGCCGTGTAC
CTAAAGGAGGCCAATGCCATCAGTGTGGAACTGAAAAAGAAGGTGCAGTTTCAGTTTGTTCTGCTGACTGACACA
CTGTACTCCCCTTTGCCTCCTGAATTACTTCCCACTGAGATGGAAAAAACTCATGAGGACAGGCCTTTCCCTCGC
ACAGTGGTAGCAGTAGAAGTCCAGGATTTGAAGAATGGAGCAACACACTATTGGTCTTTGGAGAAACTCAAGCAG
AGGCTGGATTTGATGCGAGAGATGTATGATAGGGCAGGGGAGATGGCCTCCAGTGCCCAAGACGAAAGCGAAACC
ACTGTGACTGGCAGCGATCCCTTCTATGATCGGTTCCACTGGTTCAAACTTGTGGGGAGCTCCCCATTTTCCAC
GGCTGTGTGAACGAGCGCCTTGCCGACCGCACACCCTCCCCCACTTTTTCCACGGCCGATTCCGACATCACTGAG
CTGGCTGACGAGCAGCAAGATGAGATGGAGGATTTTGATGATGAGGCATTCGTGGATGACGCCGGCTCTGACGCA
GGGACGGAGGAGGGATCAGATCTCTTCAGTGACGGGCATGACCCGTTTTACGACCGATCCCCTTGGTTCATTTTA
GTGGGAAGGGCATTTGTTTACCTGAGCAATCTGCTGTATCCCGTGCCCTGATCCACAGGGTGGCCATCGTCAGT
GAGAAAGGTGAAGTGCGGGGATTTCTGCGTGTGGCTGTACAGGCCATCGCAGCGGATGAAGAAGCTCCTGATTAT
GGCTCTGGAATTCGACAGTCAGGAACAGCTAAAATATCTTTTGATAATGAATACTTTAATCAGAGTGACTTTTCG
TCTGTTGCAATGACTCGTTCTGGTCTGTCCTTGGAGGAGTTGAGGATTGTGGAAGGACAGGGTCAGAGTTCTGAG
GTCATCACTCCTCCAGAAGAAATCAGTCGAATTAATGACTTGGATTTGAAGTCAAGCACTTTGCTGGATGGTAAG
ATGGTAATGGAAGGGTTTTCTGAAGAGATTGGCAACCACCTGAAACTGGGCAGTGCCTTCACTTTCCGAGTAACA
GTGTTGCAGGCCAGTGGAATCCTCCCAGAGTATGCAGATATCTTCTGTCAGTTCAACTTTTTGCATCGCCATGAT
GAAGCATTCTCCACGGAGCCCCTCAAAAACAATGGCAGAGGAAGTCCCCTGGCCTTTTATCATGTGCAGAATATT
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FIGURE 1418B

GCAGTGGAGATCACTGAATCATTTGTGGATTACATCAAAACCAAGCCTATTGTATTTGAAGTCTTTGGGCATTAT
CAGCAGCACCCACTTCATCTGCAAGGACAGGAGCTTAACAGTCCGCCTCAGCCGTGCCGCCGATTCTTCCCTCCA
CCCATGCCACTGTCCAAGCCAGTTCCAGCCACCAAGTTAAACACGATGAGCAAAACCAGCCTTGGCCAGAGCATG
AGCAAGTATGACCTCCTGGTTTGGTTTGAGATCAGTGAACTGGAGCCTACAGGAGAGTATATCCCAGCTGTGGTT
GACCACACAGCAGGCTTGCCTTGCCAGGGGACATTTTTGCTTCATCAGGGCATCCAGCGAAGGATCACAGTGACC
ATTATCCATGAGAAGGGGAGCGAGCTCCATTGGAAAGATGTTCGTGAACTGGTGGTAGGTCGTATTCGGAATAAG
CCTGAGGTGGATGAAGCTGCAGTTGATGCCATCCTCTCCCTAAATATTATTTCTGCCAAGTACCTGAAGTCTTCC
CACAACTCTAGCAGGACCTTCTACCGCTTTGAGGCTGTGTGGGATAGCTCTCTGCATAACTCCCTTCTTCTGAAC
CGAGTGACACCCTATGGAGAAAAGATCTACATGACCTTGTCGGCCTACCTAGAGCTGGATCATTGCATCCAGCCG
GCTGTCATCACCAAGGATGTGTGCATGGTCTTCTACTCCCGAGATGCCAAGATCTCACCACCACGCTCTCTGCGT
AGCCTCTTTGGCAGCGGCTACTCAAAGTCACCAGATTCGAATCGAGTCACTGGCATTTACGAACTCAGCTTATGC
AAAATGTCAGACACAGGTAGTCCAGGTATGCAGAGAAGGAGAAGAAAAATCTTAGATACGTCAGTGGCATATGTG
CGGGGAGAAGAGAACTTAGCAGGCTGGCGGCCCCGTGGAGACAGCCTCATCCTTGAGCACCAGTGGGAGCTGGAG
AAGCTGGAGCTCCTACATGAGGTGGAAAAAACCCGCCACTTTTTGCTGCTGCGTGAGAGACTTGGTGACAGCATC
CCCAAATCCCTGAGCGACTCGTTATCCCCCAGCCTCAGCAGTGGGACCCTCAGCACCTCCACCAGTATCTCCTCT
CAGATCTCAACCACTACCTTTGAAAGCGCCATCACACCTAGCGAGAGCAGTGGCTATGATTCAGGAGACATCGAA
AGCCTGGTGGACCGAGAGAAAGAGCTGGCTACCAAGTGCCTGCAACTTCTCACCCACACTTTCAACAGAGAATTC
AGCCAGGTGCACGGCAGCGTCAGTGACTGTAAGTTGTCTGATATCTCTCCAATTGGACGGGATCCCTCTGAGTCC
AGTTTCAGCAGTGCCACCCTCACTCCCTCCTCCACCTGTCCCTCTCTGGTAGACTCTAGGAGCAACTCTCTGGAT
CAGAAGACCCCAGAAGCCAATTCCCGGGCCTCTAGTCCCTGCCCAGAATTTGAACAGTTTCAGATTGTCCCAGCT
GTGGAAACACCATATTTGGCCCGAGCAGGAAAAAACGAATTTCTCAATCTTGTTCCAGATATTGAAGAAATTAGA
CCAAGCTCAGTGGTCTCTAAGAAAGGATACCTTCATTTCAAGGAGCCTCTTTACAGTAACTGGGCTAAACATTTT
GTTGTCGTCCGTCGGCCTTATGTCTTCATCTATAACAGTGACAAAGACCCTGTGGAGCGTGGAATCATTAACCTG
TCCACAGCACAGGTGGAGTACAGTGAGGACCAGCAGGCCATGGTGAAGACACCAAACACCTTTGCTGTCTGCACA
AAGCACCGTGGGGTCCTTTTGCAGGCCCTCAATGACAAAGACATGAACGACTGGTTGTATGCCTTCAACCCACTT
CTAGCTGGCACAATACGACCAGGTCATCTGGCTTCCGAGATCATCAGAGAAGATAAGTCTGTCTCTTTCAGCTGC
CAG**TAA**GTTTTCCAGGATGAGAGGGGAAAAAGAAAGCCTCCAGTGACTTCAGTTGCTTTGCCAGTTGTCTTGGGA
TTGTTTTACACCATCCTTTACTTCCCTTGCTCAGACCTCTCTGTTTCACCATTGCTCAGGCATTCAGGAAAGTAT
CTGCTCACTCCCACTTGGTGAGTCCTCGGCCTTGAGGTTGCTGACTCTCAGGCGTTAGGCAGCTGGATGACTTCC
CGCTTCACGCAGCAAAGGCCAGGGGCTTGCGCGCCTCTGCAGAGTTGTTGCTAGGGAGACTTGTGTCATCATCCA
CAACCTTGTTTCTCACTTCCTGGTTGGGCTCATCTCTGAAGAACAGGTCTCCCAGCTTCGCTCCTTATCACTGCA
TTGTGAAGAGGAGGAAAAGTGAATCACGGAGAGAGAAAGGAAAGGATAGAATCACAGGCTGCGTCTGCACCTGAA
AAGTGACCCGCGGAAACTCTATGGCGGATTTTTTTTTTAACTTTCTTCTTCCTGTTAAAACATAGGTCACTAACT
GTGATGTTATTTGTTTTCTAAGTGGTATGTGAGATTTCTAATGTAGTTAGAAGTTTCATTGTCTGATGGACACA
ATATGCCCTTCCGGTTCTATTCAAACCAGCAGGATCTGTCGGTGCTTAGAGATGGCTGCCTGGACTGGAATCAAA
TCTAATTTCAGGGAAATGAAGATGGAATTTGAAGGTCACTTTTAAAATTAAGTCATTGATGCTGCTGTTACAGAG
TGTGACAGAGGATCCATGTCTGTGACACAGGACGGTGGGAAGCCTGAGAGAGAGTGAAATTATGTGATACACTGA
AATGACTTTTGTTTTTCTTCTAACTCATACAAAACTGGTTTGGAAAGTCTTTGCTTTGGAAGCGTCAGACATTAG
AACAGGCCAAACTGGACTGTCTGTTCATAGCGTGCCTGAATAAGAAGGCCTCTTAGGGAGCCAGAGGGAGCAGAG
TGGTCGTGTCCTGCGTGCTCTTCACCCTCTGGGGCGCCCCTGCTGCGGCTGGCAGGTGCAGACAGCCTTTGCTGG
TCCCCAGCACGTCCAGGGTGGGTGCTCCCTTGCCCGACAGAACCATCCCCACTGTGAGGCTGTGAGAGATTTGTG
GCAGGAACTGTTTATGAGGCTCTAGTTGTTGCTGTTGTGGCGGGAAAGTTAAGAAACATAGCCCTTAAGGAAACC
ACCTTTATGTATTTTCTTAAAGCACGCCTTTAAATAAGCAAAAACTTTAAAAGGCAGGAAAGAGAATTCTTAGGC
AAATTCAGAGAAATAAGTGCTAGTTAATACTAATCACCTCCTCCTCTGTCTCTCATCCTCCTTTCTCCCATCAAA
GCAAAATATGGCCTCACCACCAGCCCCAAATCAGTGCTCAGACCCTCTCTGTGTCTGTGTGCCCTCCTGGGAGTC
AGTCAGCGCTCAGGCCAGGACTGTGCAGGGCCAGCCAGCCCATGCGCTAGTCAGGAGCACAGGCAAGGGGTGCTT
GTGGCAGTGGCCGGGCACCTGAGCCCCAGCTCGTTGTTAAACGTGCTGACGGCAAGGGGCAATGGAGTGAGTTTC
CCAACTAAGAAACCACTATTATATATTTTTTCCCTTCAGTCACATAGACTTCAGACAACTCTCCTATTTTTTATG

FIGURE 1418C

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GATTTTTCAGCTCATTTCAGATGAAGGAACTAAGTCATTGTGAACTGTCTCTTGAGATCTAAAAACAAGATGACT
TTTCCTGGCACATATTCCAAAGCAAAGACTTTGTTGCCTGCTGCTTATTGTCTAATTTACAGGGATATTTAATTT
TGTCAGGTCTATGTATATTTATCCAGCTATACTTACTTGCACAGTGGATTGGAGAGAAAGGATTCTCCAGTGTGC
ACACTCATCGGTACTCTTTCTGCATTTCCCTCGTGCTGTGTCCCGCTCGGGTTCCAATGGACAGTATCAGGGCTT
GTTTGACTTAGGTCTTTCAGTTTTCCTTTCGGTTCCCTTTTAAAAATGTGATTGTTAACCTGCCTCTTGAAAGAT
TCAACCGGGTGTGGTGGCTCACGCCTGTAATCCCAGCACATTGGGAGGCCAAGGCAGGTGGATCACCTGAGGTCA
GAAGTTTGAGACCAGCCTGGCCAACATGGTGAAACCCCGTCTCTACTAAAAATACAAAAGGTAGCCAGGCGTGGT
GGCGTGTGCCTGTGGTCCCAGCTACTTGGGAGGCTGAGGCAGGAGAATGGCTTGAACCTGGGAGGTGGAGGCTGC
AGTGAGTTGAGACTGCGCCATTGCACTCCAGCCTGGGTGACAAAGCAGGACTCCGTCTCAAAAAAAAAGAAAAGA
TTCATGATGCTGCTGCTCCCAGAAGGTTTGCTGGATGTGTTTACATAGGACTCTAACTTGTGTGCACTACAGTTG
TTCACCAGGGCCAGTGATTCACCCCAGTGTGTGGCCAGACCATGACTGTGTAGCAGGAATGTTTTAATTTGTGCT
TCCTTAGTAAATTGAAATATCAGCTGAGAGATTATTTGCTGCTGTTATTCAAAAGGCCATTTATGAAGTTAGTAT
TTGAGCCCCATAAGATCTTTAAAAAGCCTCCAATCATTTAAAGGAAGAAATCAGAGTTGCTATAAAATTCAGTAA
AAAGCTCATAGCCAAACGGCTGTGCTCAGATGGAAAGTCTGAGCTGAGGTTGGTCTCTTGCCAAACCGTGGCTGT
TGTGTGTTGTTCTTCATGTCTTCGAGTTCATTTTTTTTCATTCTGCCTATTCTGGCATCAGCTCACTTGAGGAGT
CCCTCAGCCTTCTTGTATTTAAGGCATCGTCTTAGACTTTGTGGCTCTAAAGTACCTGTCTGTTGAGATTTCAAG
TCTCTTGTCACCATCCTCACACATGACAACAAAACCCATAATGCATAAGTGGCCTTTTTGAACCAAGACTTTGCA
AACTGATCTCTCCCCCGTGAAGGAGTTGAGCACATTAGCAACAATGTACATTAATTTTGGATTTTCATTTTCATG
TTTTATTTTGTAAATATTATCTGATGTTTGGAGCTTGAGTATACAGACTGTAAATATAGTTCTTGTATTTGTACT
AATTCTGATTCTTTTGCTGTATAGCCTTAGATGTGCAATGCAGACACTATCTAACTGTGTGTGGTAACCTTGCGT
CACGGAGCTGTTAGTGAACGAGGTAAAAATAATAAAGGTACAGCCAGTGCAAAAAAAAAAAAAAAAAAAAAAAAA
A
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FIGURE 1419

MGSLTSSPSSCSLSSQVGLTSVTSIQERIMSTPGGEEAIERLKESEKIIAELNETWEEKLRKTEAIRMEREALLA
EMGVAIREDGGTLGVFSPKKTPHLVNLNEDPLMSECLLYYIKDGITRVGQADAERRQDIVLSGAHIKEEHCIFRS
ERSNSGEVIVTLEPCERSETYVNGKRVSQPVQLRSGNRIIMGKNHVFRFNHPEQARAEREKTPSAETPSEPVDWT
FAQRELLEKQGIDMKQEMEKRLQEMEILYKKEKEEADLLLEQQRLDYESKLQALQKQVETRSLAAETTEEEEEEE
EVPWTQHEFELAQWAFRKWKSHQFTSLRDLLWGNAVYLKEANAISVELKKKVQFQFVLLTDTLYSPLPPELLPTE
MEKTHEDRPFPRTVVAVEVQDLKNGATHYWSLEKLKQRLDLMREMYDRAGEMASSAQDESETTVTGSDPFYDRFH
WFKLVGSSPIFHGCVNERLADRTPSPTFSTADSDITELADEQQDEMEDFDDEAFVDDAGSDAGTEEGSDLFSDGH
DPFYDRSPWFILVGRAFVYLSNLLYPVPLIHRVAIVSEKGEVRGFLRVAVQAIAADEEAPDYGSGIRQSGTAKIS
FDNEYFNQSDFSSVAMTRSGLSLEELRIVEGQGQSSEVITPPEEISRINDLDLKSSTLLDGKMVMEGFSEEIGNH
LKLGSAFTFRVTVLQASGILPEYADIFCQFNFLHRHDEAFSTEPLKNNGRGSPLAFYHVQNIAVEITESFVDYIK
TKPIVFEVFGHYQQHPLHLQGQELNSPPQPCRRFFPPPMPLSKPVPATKLNTMSKTSLGQSMSKYDLLVWFEISE
LEPTGEYIPAVVDHTAGLPCQGTFLLHQGIQRRITVTIIHEKGSELHWKDVRELVVGRIRNKPEVDEAAVDAILS
LNIISAKYLKSSHNSSRTFYRFEAVWDSSLHNSLLLNRVTPYGEKIYMTLSAYLELDHCIQPAVITKDVCMVFYS
RDAKISPPRSLRSLFGSGYSKSPDSNRVTGIYELSLCKMSDTGSPGMQRRRRKILDTSVAYVRGEENLAGWRPRG
DSLILEHQWELEKLELLHEVEKTRHFLLLRERLGDSIPKSLSDSLSPSLSSGTLSTSTSISSQISTTTFESAITP
SESSGYDSGDIESLVDREKELATKCLQLLTHTFNREFSQVHGSVSDCKLSDISPIGRDPSESSFSSATLTPSSTC
PSLVDSRSNSLDQKTPEANSRASSPCPEFEQFQIVPAVETPYLARAGKNEFLNLVPDIEEIRPSSVVSKKGYLHF
KEPLYSNWAKHFVVVRRPYVFIYNSDKDPVERGIINLSTAQVEYSEDQQAMVKTPNTFAVCTKHRGVLLQALNDK
DMNDWLYAFNPLLAGTIRPGHLASEIIREDKSVSFSCQ

FIGURE 1420A

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GGCGGCTGTCGCGGGGACCGGAGGCGGAGGCTGCAGCGGGCACTGCGGCGCCGAGGCGCGGCGGCAGGACGGGAA
CCACGCGAGCTGCAGCCAGCTAGGTCTTGACTCCACTAACGGGGACTTCTCATACGGCTTTGAACTTGGACCTTG
GTGCATAAGCAAATGTAACTCAGCGAATTGTAATGGAAAGCATATGGACAGGTCTACGCCACATCACTTAGGTGC
TAAGAGATGCCGTTTGCAGGCCTCATCTCTGCTTGAGAATCGGGGGCTCCAGGCACTAGAAGAGCCGGCTGATCC
TGGGCTCCTAGCTTGAATAAGCCTTCACTTCCAGCTGCTCTCCCCAACGGCTGTGTAAACTACTCGTTTCTCTTA
ATGATGGGTATTGGTAAGAATACCACATCCAAATCAATGGAGGCTGGAAGTTCAACAGAAGGCAAATACGAAGAC
GAGGCAAAGCACCCAGCTTTCTTCACTCTTCCGGTGGTGATAAATGGAGGCGCCACCTCCAGCGGTGAGCAGGAC
AATGAGGACACTGAGCTCATGGCGATCTACACTACGGAAAACGGCATTGCAGAAAAGAGCTCTCTCGCTGAGACC
CTGGATAGCACTGGCAGTCTGGACCCCCAGCGATCAGACATGATTTATACCATAGAAGATGTTCCTCCCTGGTAC
CTGTGTATATTTCTGGGGCTACAGCACTACCTGACATGCTTCAGCGGCACGATCGCAGTGCCCTTCCTGTTGGCT
GATGCCATGTGTGTGGGGTACGACCAGTGGGCCACCAGCCAGCTCATTGGGACCATTTTCTTCTGTGTGGGAATC
ACTACTTTGCTACAGACAACGTTTGGATGCAGGTTACCCCTGTTTCAGGCCAGTGCTTTTGCATTTTTGGCCCCT
GCTCGAGCCATCCTGTCTTTAGATAAATGGAAATGTAACACCACAGATGTTTCAGTTGCCAATGGAACAGCAGAG
CTGTTGCACACAGAACACATCTGGTATCCCCGGATCCGAGAGATCCAGGGGGCCATCATCATGTCCTCACTGATA
GAAGTAGTCATCGGCCTCCTCGGCCTGCCTGGGGCTCTACTGAAGTACATCGGTCCCTTGACCATTACACCCACG
GTGGCCCTAATTGGCCTCTCTGGTTTCCAGGCAGCGGGGGAGAGAGCCGGGAAGCACTGGGGCATTGCCATGCTG
ACAATATTCCTAGTATTACTGTTTTCTCAATACGCCAGAAATGTTAAATTTCCTCTCCCGATTTATAAATCCAAG
AAAGGATGGACTGCGTACAAGTTACAGCTGTTCAAAATGTTCCCTATCATCCTGGCCATCCTGGTATCCTGGCTG
CTCTGCTTCATCTTCACGGTGACAGATGTCTTCCCTCCCGACAGCACAAAGTATGGCTTCTATGCTCGCACAGAT
GCCAGGCAAGGCGTGCTTCTGGTAGCCCCGTGGTTTAAGGTTCCATACCCATTTCAGTGGGGACTGCCCACCGTG
TCTGCGGCCGGTGTCATCGGCATGCTCAGTGCCGTGGTCGCCAGCATCATCGAGTCTATTGGTGACTACTACGCC
TGTGCACGGCTGTCCTGTGCCCCACCCCCCCCCATCCACGCAATAAACAGGGGAATTTTCGTGGAAGGCCTCTCC
TGTGTTCTTGATGGCATATTTGGTACTGGGAATGGCTCTACTTCATCCAGTCCCAACATTGGAGTTTTGGGAATT
ACAAAGGTCGGCAGCCGCCGCGTGATACAGTGCGGAGCAGCCCTCATGCTCGCTCTGGGCATGATCGGGAAGTTC
AGCGCCCTCTTTGCGTCCCTTCCGGATCCTGTGCTGGGAGCCCTGTTCTGCACGCTCTTTGGAATGATCACAGCT
GTTGGCCTCTCTAACCTGCAGTTCATTGATTTAAATTCTTCCCGGAACCTCTTTGTGCTTGGATTTTCGATCTTC
TTTGGGCTCGTCCTTCCAAGTTACCTCAGACAGAACCCTCTGGTCACAGGGATAACAGGAATCGATCAAGTGTTG
AACGTCCTTCTCACAACTGCTATGTTTGTAGGGGGCTGTGTGGCTTTTATCCTGGATAACACCATCCCAGGCACT
CCAGAGGAAAGAGGAATCCGGAAATGGAAGAAGGGTGTGGGCAAAGGGAACAAATCACTCGACGGCATGGAGTCG
TACAATTTGCCATTTGGCATGAACATTATAAAAAAATACAGATGCTTCAGCTACTTACCCATCAGCCCAACCTTT
GTGGGCTACACATGGAAAGGCCTCAGGAAGAGCGACAACAGCCGGAGTTCAGATGAAGACTCCCAGGCCACGGGA
TAGCCTTTGCTGTGCCCTGTGGCCTGGCCGCAGTGAGGCATGTATCTGTAGTTCCTTGCTGAGTAACAAGAAGTA
AAATACATGTTTGTATATCTACATTTACATTCTGCGCCCCAGAGCTAAGACAGACTGCGAATCACTTTTCTGCTG
TGAGGGTGATGGTGCCTGATGCGGTGTCTCGCCTATCTCCTTATTTAAGCCCTTAACTCCTTGCCCTTTGAGAGT
GTCCATTGCTGGCCATGGTCACTAAATTTGAAGTTCCAGTCCTCCCTTTGGAGTGGACATTTAAAATCTGCAGCC
ATTCCTTGCTTCAGTTCCCTTCCACCACCCAGGGCTGGCTTTCCTATAAGCCACCTCCAGGGTCCAGGGGCTTTC
TCTCTCTCTCCGAAGCCCCTGGACCTGTTTCCTTGTCATTTGACCCTCGTCTGTGCCCGCGGAGACCTCCTCTGA
CCAAGGGGCACTAGTATGCCTTGCGCTATCATGACTGACTGGCCCAGTATGATTCTGTTGTCGCTGATCTCCCGG
AGGAGGAGGCTGTTGACCTGAAAACAGTGGCGTGGCTCCCCTGTGCCCAGATCTGGCCATGGGTGAGGCCTGCAC
AGATGTTGAATGAACATCTGTTTGGGGCATTGGAGGGAAAAGGAAAGGACCCTGAAGCCAATATCTGATTCTCGG
CTGCACCTTCTCTTGGCCACCCTGGCCCTGACCGGGCCAGCACGTGCACACTGGCCTCTTTTCATTTCACTAGTG
GCCGAGACACCCTCTCTGGCATTTATCACTGTTGGCCGGTGTGATGAGTATAGAGTGCCACCCAAGGCACCAGTC
ACACAAGCTGATGGGCGTCTTGGCTCTGCCGTCATGTGGATGTTATTGTCGCGCGCGTCTATAATTACAAGGTTT
TATTCCTATTTAATGTTATTGACTATAGCAGATTTTGGAAATCAGTGTTTTCCATGTGACCCTCTTTCCTTGCAT
CCCTATTCCTTGTCCCCCACCCACTCTTCCCCCCATCAAGAAAAGAACCAGCATTTGTAAAGCTGTGGACACCAT
CAGGGAAGCTTGTTGTAACGGCTTTTGAAGGCCAGTAACCATTGTTGTGGTTGTGTTTTGTATTGCTTGATACCA
TGAAAGTGTAAATACTGTAATGCCTAATCTATTTATCAAAACTGACTACTGGACCGGAGCCCAGAAACCATGGGT
CAAGTTACACGTGAATTTGTTTTGTGAAGAAGGGAAGCTGGGGCAGGTAACACGCAGAGCCGCCACGTGGAACGG
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FIGURE 1420B

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TCTGTCCGCCGGTCTGTCCCGCTTGCCGGGCTTCTGTTGCAAGTCTTGGCTTAAGGAGACTTCCTGTGGGTTGCC
ATGTCGCACGTCCGTTAGATCTTGATTTTACAGGTGAGGGTGGTTGCCAAAGGTGATAAGAAAAGCAGCCAACAG
GCTCCCTCTCACTTAAGAGAGTTCTAATTAATAACACTAAATTCTTCCTGAGAAATGACTCCTCTTGGTTTGGTT
TGAAGTTTTTCAGTGAAGGAAAAGGCCTGAGATAGGAAGCAGTGCCCTCGCTTCATGAGGTGGCACATCTTCGGT
GGCCGTTGGCCTGGTCGAGCTTTGGTCAGCTGCGTGGGTGCCTGTCTCCTGTCTCCAGCGGCAGGGCATGGTTCT
TGGCAGCCTGGTGTCCACACGGTGCATTCCTGTCCCCCTCGGCCCCAGGCTGGCTCAGCTCTCCAGTGCTGCGGC
GCTGTCTTTGCAGCATTGCCATGTCACCGTAGCCCCCTTCACTCTTGGAAGTTTGGGGCTTCAAGGTTTATTCTG
GCAAGAACACCTCGGAGCCACTGCATTGTTTTGCCAAAAACTTACTGCAGATTAAGTAAAGAACTTAGATGCTAA
ATTACATCTAATTTTGTATGTTTTTTTAAATGTGTCTTTGATGCATACTTTAGAAGCACACTGGCTCGCGGTTTC
CATCCCTCTTGCCTTGGGACACTCTTGAGGCTGGCAGCCCTCCTGCAATGAGTTGCTCTCAGTTCCTTCTGTTTG
GATTTTGCTCAACATCTCCAGTTTCTCTGCTCTGAAAAATGGGGAAAACTGCTAAACATCCCAGAGATTTGCAAT
CTTCTAGCTCTCCAGGTGAGCAGAAAGACCAAATATCCAAATAAAAGCCTGAAAGCCATTGGTGATCCAGGGGCA
CCTTCTCTTCAGCTTGACTGGGCGTCTTCCGCTGCATAACACTCAAGGTGTCTGCTCTAGTCATCCAGAAACCCA
CTCCCTTCTGAAGCCCCTCCTTGGGCCGGGTTGTATCAGGAGGATTCAACCCCGCTAACATGTGGGGTGCCCTCT
GTAGGCCTTCACACAGGGAAGGAAGCCCTACCCTTTCAACTCCTGTTGGAGTGAGAGTTTCCTGTTCTGATTCCA
CTGTGGCCAACCCAATAATTCTGTCCGAGGAGGGGTAAGGGAATAGGAGGTGGGGAGCAAAGAGGGCAGCCTGAC
TAGATGCCCCTGCTGAATCTGGTACTTTCTGCACAGCCTTGAGTGATTGGAGTCCCCTAATGACTAATAAACTTG
AACATGTAACACACACACACACACACACACACCATTTTAGGAAGTGGTTCTCCTACTGGAAAATATGCTACAG
AATGAAAGTTTGTAATTGAAAGAAAAGAATGTATTCATCTGCTTCTTGGGTTTAAGCACACACCTGAAGGGGAG
ATATTGGGGGACACGGTGGCCACTCGCGGTCTGTGTCATGACACTTCCCATTCACATCATTGGCCTGCGTTGCTG
GGGCTTTGAACCACCACCCCGTACTTTGTTTTGCCTGTAGAGTGTTGTAAAATATTTTGGATGTGAATGTCCTTG
CAGGCCGGTTAGTCTCCAGTTTCCACAGAGACCACCTACCCACCACCTTCCCAGGTCACCTGCCTGGTCCCTGAA
AGAAAGCATTTGTGTGGGCAATCCCAACATGAAATGTAGACAGCGTGAATACGGACAGGAGGTGATGCCATATTC
ACAGTGGGGGATGGAGGGCCCCCACCCCTGCTTCACAGAATAATGGGAAGTGACTCTAGTCTTTGTAAGCAATTT
TCATTCTCATTAGGAAGTTAAATGTAGATTCACAGATACATTTACTTTCAGAATCCTCAAGAGGATTTCAAATGC
TAACTTTTAGTTTCTTGGGATTGATCAAGGCAAGAGAAGTGGCTTTAACCATGCCAGCCAGAATGAAGCATCATG
GGTCCTGATGGTTTCCCGTTTTCATGGTAACAAATTCGCACAGAGGTTTTGCTTTATGCTGTAGAATACCGACTT
TCATGATGACAACTTGGTTTATGCATGAATATTGCAGTATTTCCATATAGCAAAATAACATTTCTACCCAGGATA
ATAGTCACAGTTTTCCAGGGAGGGAATGATATAATTTTCATGACAATGTCATGTGATGATAGAATTTCTCCATTG
ATGAATCTCTAGTATGTGTGTATACTTTATTTACCCATACGTATATTTATGACCATGAGCTAAGTTGTTATTTC
TTTCATTCATATCCCTGCTGAAATATTGGTACTAGCAACTTAAAGTTGGCAAGTCTCATCTTCAGTAATACGGAT
GCCATGGGAGTGGCCAGGCCAGATTGAAGGTGAATATGGAGCAGTAGCAGAAGCCTCATTCCAGAACCCATCTGG
CCAGAGAAGCAGCAGCATCCTGGGGGATGGCCGTGCATGGGGTGTACACTCGCTATAGGCATAGGCCCGGCATGG
CTGTCGCTGGACGCCAGCTGTGCACACCCAGCCACACCTGCTGCACGCCGCGTTAGTGTGCGGCTCCGGGCCTGA
GCATTCGCAAAGCTCGCTTCTCCAGGGAGCCTCCTCTTGGCTTTGGAAAAGAGCCCAGGGACTTAACGTGCTGCC
TGTTGTACTCTGTCCCCTCATGACTTTTTAGACACAGGGACTAGGACATCGACCACCCTCTGCCCCTCCTGCAGT
CAGAACCCGAGTAGTGCAAGAACGGCCACCGGTTTTGCCAGCGTTCAGCGTCTGCCCATGGACCCATAAGGCAC
ATTAGCGTTGGGGGTCTCTTTTCAGCAGCCTCACAGACATTCCCGTCCTTTCTGGTTGGTGTTGACTGTGTTTCA
GCATCACTCTACCCTCCCATGTCCTTAGCATTGCTGTGCGTGTTTCCAGGCACTTAGGACACCCTTCCCCACGTT
GCCATCTTACTGACAGTTCAAATGACTCTCCTTTTTTGTTCGTTAGTAACAATCTTCATTTGACACCTTAATACA
TTTCTGACTGTTCTTAAAACAGTGGGGATGCCTATATTTTCCTTGAGTTTTTGTGACTGACTTTGGCTATATATA
CCTTTCTGGGGTTTTGTTTGTTTTTATTTTTATTTTGATTACCGAGGGTATTTGGGGTGGGGTTGTTTTTTGAG
ATGTGTAATTCTTTTATGGAGTTTTTAAAAGAATTTTCATATTGTTTTTCTAACATGGCTTCATTAAACGTTTA
AGTATTTTAAAAATATGTAATATTTGGACCAGATGTTGTGAATAATAGTAGAGATAAAGCTATTTTATTCTGTAT
TTTTAAAACTGTTCCGTACAAATAAAAGCTCTCCTGGACAC
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FIGURE 1421

ATGCGTGAGTGCATCTCCATCCACGTTGGCCAGGCTGGTGTCCAGATTGGCAATGCCTGCTGGGAGCTCTACTGC
CTGGAACACGGCATCCAGCCCGATGGCCAGATGCCAAGTGACAAGACCATTGGGGGAGGAGATGATTCCTTCAAC
ACCTTCTTCAGTGAAACGGGTGCTGGCAAGCATGTGCCCCGGGCAGTGTTTGTAGACTTGGAACCCACAGTCATT
GATGAAGTTCGCACTGGCACTTACCGCCAGCTCTTCCACCCTGAGCAACTCATCACAGGCAAGGAAGATGCTGCC
AATAACTATGCCCGAGGGCACTACACCATTGGCAAGGAGATCATTGACCTCGTGTTGGACCGAATTCGCAAGCTG
GCTGACCAGTGCACCGGTCTTCAGGGCTTCTTGGTTTTCCACAGCTTTGGTGGGGGAACTGGTTCTGGGTTCACC
TCGCTGCTCATGGAACGTCTCTCAGTTGATTATGGCAAGAAGTCCAAGCTGGAGTTCTCCATTTACCCGGCGCCC
CAGGTTTCCACAGCTGTAGTTGAGCCCTACAACTCCATCCTCACCACCCACACCACCCTGGAGCACTCTGATTGT
GCCTTCATGGTAGACAATGAGGCCATCTATGACATCTGTCGTAGAAACCTCGATATCGAGCGCCCAACCTACACT
AACCTTAACCGCCTTATTAGCCAGATTGTGTCCTCCATCACTGCTTCCCTGAGATTTGATGGAGCCCTGAATGTT
GACCTGACAGAATTCCAGACCAACCTGGTGCCCTACCCCCGCATCCACTTCCCTCTGGCCACATATGCCCCTGTC
ATCTCTGCTGAGAAAGCCTACCATGAACAGCTTACTGTAGCAGAGATCACCAATGCTTGCTTTGAGCCAGCCAAC
CAGATGGTGAAATGTGACCCTCGCCATGGTAAATACATGGCTTGCTGCCTGTTATACCGTGGTGACGTGGTTCCC
AAAGATGTCAATGCTGCCATTGCCACCATCAAAACCAAGCGTACCATCCAGTTTGTGGATTGGTGCCCCACTGGC
TTCAAGGTTGGCATTAATTACCAGCCTCCCACTGTGGTGCCTGGCGGAGACCTGGCCAAGGTACAGAGAGCTGTG
TGCATGCTGAGCAATACCACAGCTGTTGCCGAGGCCTGGGCTCGCCTGGACCACAAGTTTGACCTGATGTATGCC
AAGCGTGCCTTTGTTCACTGGTACGTGGGTGAGGGGATGGAGGAAGGCGAGTTTTCAGAGGCCCGTGAGGACATG
GCTGCCCTTGAGAAGGATTATGAGGAGGTTGGAGCAGATAGTGCTGACGGAGAGGATGAGGGTGAAGAGTAT**TAA**

FIGURE 1422

MRECISIHVGQAGVQIGNACWELYCLEHGIQPDGQMPSDKTIGGGDDSFNTFFSETGAGKHVPRAVFVDLEPTVI
DEVRTGTYRQLFHPEQLITGKEDAANNYARGHYTIGKEIIDLVLDRIRKLADQCTGLQGFLVFHSFGGGTGSGFT
SLLMERLSVDYGKKSKLEFSIYPAPQVSTAVVEPYNSILTTHTTLEHSDCAFMVDNEAIYDICRRNLDIERPTYT
NLNRLISQIVSSITASLRFDGALNVDLTEFQTNLVPYPRIHFPLATYAPVISAEKAYHEQLTVAEITNACFEPAN
QMVKCDPRHGKYMACCLLYRGDVVPKDVNAAIATIKTKRTIQFVDWCPTGFKVGINYQPPTVVPGGDLAKVQRAV
CMLSNTTAVAEAWARLDHKFDLMYAKRAFVHWYVGEGMEEGEFSEAREDMAALEKDYEEVGADSADGEDEGEEY

FIGURE 1423

AGTGTGGTTTTAGTTTTTCCTAAGAAGTGGCGTGGTTTGGGGCTTTATATCCGGGAGGAGCATATGTACGCAAAT
CCTGGGGCGTTTGCAAACCCGGATCCGGGGCGTCTGGCCCCATGCCCGGCCGGGCGTTTGAGGGCTACTGCCACG
CAGCGTTTCTGGAGCCTGCCGGCTGGTGCCCTGGTGGCCTTTATCTCTGTCCCCCTTTGTCCTCTTTATCTCAGG
CTCTCCAGGAGGCCGGGGGGCCCACTCCGCCTATCGCTCCCCTCGGCTACGCTGCCACTCCAATGCCCCGCAGGT
CGCGAGCTGCTGTTCTTTCGAAGGCGCCGGAGAACCAGGGGCGTCCCGCGCCACCTCTGACTCGGAGCAGCGCCG
AGCACTGACGCTCCCGCCCTTGGGCAAGGACGCCAGTGCGCCCGCGCGCGTCCCTCTGCGCGGCAGCCCGTCGCG
GGCCCTCAAGGGGAAGCCCAGGCCAGG**ATG**GCCCCGGGTCGCGCGGTGGCCGGGCTCCTGTTGCTGGCGGCCGCC
GGCCTCGGAGGAGTGGCGGAGGGGCCAGGGCTAGCCTTCAGCGAGGATGTGCTGAGCGTGTTCGGCGCGAATCTG
AGCCTGTCGGCGGCGCAGCTCCAGCACTTGCTGGAGCAGATGGGAGCCGCCTCCCGCGTGGGCGTCCCGGAGCCT
GGCCAGCTGCACTTCAACCAGTGTTTAACTGCTGAAGAGATCTTTTCCCTTCATGGCTTTTCAAATGCTACCCAA
ATAACCAGCTCCAAATTCTCTGTCATCTGTCCAGCAGTCTTACAGCAATTGAACTTTCACCCATGTGAGGATCGG
CCCAAGCACAAAACAAGACCAAGTCATTCAGAAGTTTGGGGATATGGATTCCTGTCAGTGACGATTATTAATCTG
GCATCTCTCCTCGGATTGATTTTGACTCCACTGATAAAGAAATCTTATTTCCCAAAGATTTTGACCTTTTTTGTG
GGGCTGGCTATTGGGACTCTTTTTTCAAATGCAATTTTCCAACTTATTCCAGAGGCATTGGATTTGATCCCAAA
GTCGACAGTTATGTTGAGAAGGCAGTTGCTGTGTTTGGTGGATTTTACCTACTTTTCTTTTTTGAAAGAATGCTA
AAGATGTTATTAAAGACATATGGTCAGAATGGTCATACCCACTTTGGAAATGATAACTTTGGTCCTCAAGAAAAA
ACTCATCAACCTAAAGCATTACCTGCCATCAATGGTGTGACATGCTATGCAAATCCTGCTGTCACAGAAGCTAAT
GGACATATCCATTTTGATAATGTCAGTGTGGTATCTCTACAGGATGGAAAAAAAGAGCCAAGTTCATGTACCTGT
TTGAAGGGGCCCAAACTGTCAGAAATAGGGACGATTGCCTGGATGATAACGCTCTGCGATGCCCTCCACAATTTC
ATCGATGGCCTGGCGATTGGGGCTTCCTGCACCTTGTCTCTCCTTCAGGGACTCAGTACTTCCATAGCAATCCTA
TGTGAGGAGTTTCCCCACGAGTTAGGAGACTTTGTGATCCTACTCAATGCAGGGATGAGCACTCGACAAGCCTTG
CTATTCAACTTCCTTTCTGCATGTTCCTGCTATGTTGGGCTAGCTTTTGGCATTTTGGTGGGCAACAATTTCGCT
CCAAATATTATATTTGCACTTGCTGGAGGCATGTTCCTCTATATTTCTCTGGCAGATATGTTTCCAGAGATGAAT
GATATGCTGAGAGAAAAGGTAACTGGAAGAAAAACCGATTTCACCTTCTTCATGATTCAGAATGCTGGAATGTTA
ACTGGATTCACAGCCATTCTACTCATTACCTTGTATGCAGGAGAAATCGAATTGGAG**TAA**TAGAAAATGGAAGAT
GGTGTTGTTAATAAAGGCATTTAATAGATAAAAACATCTCCAAAAAGGATTTTGAAGCTGATCCTATTTAGTTAA
AAAGATAATTTTGCTTTCAACTGTAGGTCCAGAAAACTAATTATTGGCATCAGTCTGTGAAATAGTCCATTATTT
GTTGTTAAAAATGCTTCAAAAGGTTTTCAGTGTCAGTCTGAGATGCCTGGTATATAGGAGCCTTTGGGAAATACT
TATTTTTCAGTATTCCATGCATATTAGATATCACCATGAAGCAAGAGACATGCATTCTATAATCATGTAGACACT
CAGACTCAGGGGAAAATACAAGTTATATCCTGAAAGCCTTTAAAACTCTATGGTAGGATCAAAGATTCAAATGGT
TTCAGAGAGGTTTTATTTCAATTAATTTGTTCTAGTGCTTTCAAGAGCAAGTACATCAAAATGTAGAAGGTAAAA
TGTATGCAACACTAATATAAATTATTCCAAGTCTTTAAGGAGCCAAAGAAAAAAAGATTTCTCACAGCTTTTTG
TTCTGTTTTGTATTTCAATTAGGAACTTGCAGTATTATTTTGAAACCATTCTAAAATAATAGGAGTTAGGAAAT
AAATAAAGTTTTGCTAGCCCTGCTAAGTTCAGGCTTAGAGGCTTATCGCTAAGT**X**TAAACTTCACCAGATTCCAC
GAAAAGCTGGATAGCTTTTTTTCTGACTTATGTTGTGGTTGCACCCCTCACAAATGGCAGAACAGTATGTAAAGC
TGGTAACACCTCGGTTTCAGTGCACCATGTGTTTGCTTTGTGAAGGTGAAGAATATGTTGGTTTAGAGAAAGAAA
TTGGATGTAATTTTATGCAATTTACTTTTAAAGACAAACATAACTATTTAGCAGAGAATATTTTAATAAATGCAA
AACAACAGCTGGACTGCTGTACATCAAGGACAGATTAACTGGAAACATATGTTCCTTATGTGTGATTGAGAGCC
ATTCAGAAAGACTTCCTTTGTGTTCAGCCTATACTTTTCCATATGGTATACCTTGAAAAAAATTAGCACACCAT
GGTTATTTTTCTACCTTTTATAAAAGACAGAGCCTGTTACTCATTTAGAAGATAGAGAAAATTGGTCTAAAATT
GAACATCCTAGATTCACACTCCCAAGTCACTTAAGGTGATTTGATGGTGAGGAAAATGATTGACAAAGCCCAACA
ATGATCTCAGGAATTACATTTTCCAACAGACCAAAAAATGTTTTCATGTAGCAGCAATGCAGATTTGGTGAATAT
TTAATATATATTTTAGTATGTATTTCACTTTATGACTGACAATTAAAAAATATTGTTTGGCCAAATAGTAAACAC
CCTTTTGAAACCATGAAAAAA

FIGURE 1424

MAPGRAVAGLLLLAAAGLGGVAEGPGLAFSEDVLSVFGANLSLSAAQLQHLLEQMGAASRVGVPEPGQLHFNQCL
TAEEIFSLHGFSNATQITSSKFSVICPAVLQQLNFHPCEDRPKHKTRPSHSEVWGYGFLSVTIINLASLLGLILT
PLIKKSYFPKILTFFVGLAIGTLFSNAIFQLIPEAFGFDPKVDSYVEKAVAVFGGFYLLFFFERMLKMLLKTYGQ
NGHTHFGNDNFGPQEKTHQPKALPAINGVTCYANPAVTEANGHIHFDNVSVVSLQDGKKEPSSCTCLKGPKLSEI
GTIAWMITLCDALHNFIDGLAIGASCTLSLLQGLSTSIAILCEEFPHELGDFVILLNAGMSTRQALLFNFLSACS
CYVGLAFGILVGNNFAPNIIFALAGGMFLYISLADMFPEMNDMLREKVTGRKTDFTFFMIQNAGMLTGFTAILLI
TLYAGEIELE

FIGURE 1425A

GGCCAAAGGTCAAGATACTTCTCTGGGAAATGTTGCTGCTGATGCTGCTTTACAAAGTCATACAATGAGTGTTTG
GTTTAAGAAAGATTTTCATACTTAAAAGATTTTCATCTTGGAAATACATCAAGTGAAAATTAAATTCTTTTGGGA
AACATTTTCCTTCTGATATATTATACTTGTA**ATG**GGCGACATGGCAAACAACTCAGTTGCTTACAGTGGTGTGAA
AAACTCTTTGAAGGAAGCTAATCATGATGGAGACTTTGGAATTACGCTCGCAGAGCTGCGGGCTCTCATGGAGCT
CAGGTCCACAGATGCATTACGAAAAATACAGGAAAGCTATGGAGATGTCTATGGAATTTGCACCAAATTGAAAAC
ATCTCCCAATGAAGGTTTAAGTGGAAACCCTGCAGATTTAGAAAGAAGAGAAGCAGTGTTTGGAAAGAATTTTAT
ACCTCCTAAAAAGCCAAAAACCTTTCTTCAATTAGTATGGGAAGCATTACAAGATGTCACTTTAATTATATTAGA
AATTGCAGCCATAGTATCATTGGGCCTTTCTTTTTATCAGCCTCCAGAAGGGGATAATGCACTTTGTGGAGAAGT
TTCTGTTGGGGAGGAAGAAGGTGAAGGTGAAACTGGGTGGATTGAAGGAGCTGCAATCCTCTTGTCTGTAGTGTG
TGTGGTGTTAGTAACAGCTTTCAATGACTGGAGTAAGGAGAAACAGTTTAGAGGTTTGCAGAGCCGAATTGAACA
AGAACAGAAGTTCACTGTCATCAGGGGTGGTCAGGTCATTCAGATACCTGTAGCTGACATTACTGTTGGAGATAT
TGCTCAAGTGAAATATGGTGATCTTCTTCCAGCTGACGGCATACTTATTCAAGGCAACGATCTTAAAATTGATGA
AAGCTCATTGACTGGTGAATCAGATCATGTTAAAAAGTCTTTAGATAAGGATCCCTTACTTCTATCAGGTACTCA
TGTAAGGGAAGGCTCTGGAAGAATGGTAGTTACAGCTGTAGGTGTAAATTCTCAAACTGGAATTATCTTTACCTT
ACTTGGAGCTGGAGGTGAAGAGGAAGAGAAGAAAGATGAGAAGAAAAAGGAAAGAAAAATAAGAAACAAGATGG
AGCTATTGAGAATCGCAACAAAGCAAAGCCCAGGATGGTGCAGCCATGGAAATGCAGCCATTGAAGAGTGAAGA
AGGTGGAGATGGTGATGAAAAGATAAAAAGAAAGCAAATTTGCCAAAAAAGGAAAAATCTGTTTTACAAGGGAA
ACTTACAAAACTGGCTGTTCAGATTGGCAAAGCAGGTCTGTTGATGTCTGCCATCACAGTTATCATTCTAGTATT
ATATTTTGTCATTGACACCTTCTGGGTTCAGAAAAGACCATGGCTTGCTGAGTGCACACCAATTTATATACAATA
CTTTGTGAAGTTCTTCATTATTGGAGTTACAGTTTTAGTGGTCGCAGTGCCAGAAGGTCTTCCACTTGCAGTCAC
GATCTCACTGGCTTATTCAGTCAAAAAAATGATGAAAGATAATAACTTAGTAAGGCATCTGGATGCTTGTGAAAC
CATGGGAAATGCTACAGCTATTTGTTCAGATAAAACAGGAACTTTGACAATGAACAGAATGACAGTCGTTCAAGC
TTACATAAATGAAAAACATTATAAAAAGGTTCCTGAACCAGAAGCTATTCCACCAAATATTTTGTCCTATCTTGT
AACAGGAATTTCTGTGAATTGTGCTTATACATCAAAAATATTGCCACCAGAGAAGAGGGTGGATTACCTCGTCA
CGTTGGTAATAAAACTGAATGTGCCTTGTTGGGACTTCTTTTGGATTTAAAACGGGATTATCAGGATGTTAGAAA
TGAAATACCAGAAGAAGCACTGTACAAAGTCTACACCTTCAATTCTGTTAGGAAGTCCATGAGTACTGTCCTGAA
AAATTCAGATGGAAGTTATCGAATATTCAGCAAGGGTGCATCTGAGATAATTCTGAAAAAGTGTTTCAAAATCTT
GAGTGCTAATGGTGAGGCAAAAGTATTCAGACCAAGGGACCGTGATGATATTGTAAAAACTGTGATTGAACCGAT
GGCATCAGAAGGCTTGAGAACCATATGTCTTGCATTCAGAGATTTTCCAGCAGGAGAACCAGAACCAGAGTGGGA
TAATGAAAATGATATTGTCACCGGCCTTACATGCATTGCTGTTGTGGGGATTGAAGATCCTGTGAGACCTGAGGT
GCCAGATGCAATTAAAAAGTGTCAGAGGGCTGGAATTACTGTGCGGATGGTCACTGGTGATAATATTAATACTGC
TCGGGCCATTGCTACCAAATGTGGTATTTTACATCCTGGGGAAGATTTTCTGTGCCTAGAAGGTAAAGATTTTAA
CAGAAGAATACGAAATGAAAAAGGAGAGATTGAGCAAGAGAGGATAGACAAGATTTGGCCAAAACTTCGAGTACT
TGCAAGATCATCTCCTACTGATAAGCATACACTGGTTAAAGGTATAATTGACAGCACTGTCTCAGACCAACGCCA
GGTTGTAGCTGTAACTGGTGATGGTACAAATGATGGCCCAGCACTAAAGAAAGCAGATGTTGGATTTGCAATGGG
TATTGCTGGAACTGATGTAGCTAAAGAAGCATCCGATATTATTCTCACAGATGACAACTTTACAAGCATTGTTAA
AGCAGTTATGTGGGGACGAAATGTCTATGACAGCATCTCAAAATTCCTTCAGTTCCAACTTACTGTTAATGTAGT
AGCAGTGATTGTTGCTTTTACGGGCGCCTGCATTACTCAAGACTCACCGCTTAAGGCTGTGCAGATGCTGTGGGT
AAACCTCATAATGGATACACTCGCTTCCCTGGCTCTGGCAACGGAACCACCCACTGAGTCTCTCTTGCTTCGGAA
ACCTTATGGTAGAAATAAGCCTCTCATCTCACGTACAATGATGAAGAATATTTGGGTCATGCATTCTATCAACT
TGTAGTAGTCTTTACACTCTTATTGCTGGAGAAAGTTTTTGACATTGATAGTGGAAGAAATGCTCCTTTGCA
TGCTCCTCCTTCAGAACATTATACTATTGTTTTAATACCTTTGTGCTGATGCAACTTTTCAACGAAATAAATGC
CCGGAAAATTCATGGTGAAAGAAATGTATTCGAAGGAATCTTTAACAATGCCATCTTCTGCACAATTGTTTTAGG
CACTTTTGTGGTACAGATAATAATTGTGCAGTTTGGTGGAAAACCTTTCAGTTGTTCAGAACTTTCAATAGAACA
GTGGCTATGGTCAATATTCCTAGGAATGGGAACATTACTCTGGGCCAGCTTATTTCAACAATTCCAACTAGCCG
TTTAAAATTCCTCAAAGAAGCTGGTCATGGAACACAAAAGGAAGAAATACCTGAGGAGGAATTAGCAGAGGATGT
TGAAGAGATTGATCACGCTGAAAGGGAGTTGCGGCGTGGCCAAATCTTGTGGTTTAGAGGTCTGAACAGAATCCA
AACACAGATTCGAGTGGTGAATGCATTTCGTAGTTCTTTATATGAAGGGTTAGAAAAACCGGAATCAAGAAGTTC

FIGURE 1425B

GATTCACAACTTTATGACACATCCTGAGTTTAGGATAGAAGATTCAGAGCCTCATATCCCCCTTATTGATGACAC
TGATGCCGAAGATGATGCTCCTACAAAACGTAACTCCAGTCCTCCACCCTCTCCCAACAAAAATAACAATGCTGT
TGACAGTGGAATTCACCTTACAATAGAAATGAACAAGTCTGCTACCTCTTCATCCCCAGGAAGCCCACTACATAG
TTTGGAAACATCACTC**TGA**TTGTAAGCTGAATGTTAACACACTAGCTGCATTGTAAAGAAACAAATTGAAACTGG
GTCTTTTCACATATTGTGATGGACAAGCTAGTATTCTTGTCTTTGGACTTCAACAGAAGACACACTTGTACGAAT
GTAGATTTATTTTTTTAAAAAAAAAAAAGCAAAGCTTTCTGCCAGACTGAGGGTGCTTTTTGGGGGGTGGGAGAA
ATGAACTGACAGATAAACAGTAACTCAGCGTAAGTGACCTGTGGATCATCAGTAGTACCCAAGCATGGTCCTGAA
CAGTGTATTAGCAGAGCTTTAGTTTATCTCAGTCCTGGATGGGAGAGAGAGGGAGGAGTAAAACTGGGCAAGACA
AAGAGCCCTGGATCGTTGAATTGATAGTTTAATTTCTGCTGTTGGCTGTTAATAATTTGGATTATTTATGTTTAT
AAATGATACAGATCTGTTTACAAGGTTTGTAGATACTTTTTTTGTTCCTGTTCATAGATGGGAAGCTTCCTTATA
ACTGATGCAGAGAAAAATTAGTCCTTCAAATACTGCTGTATTTTCAGG

FIGURE 1426

MGDMANNSVAYSGVKNSLKEANHDGDFGITLAELRALMELRSTDALRKIQESYGDVYGICTKLKTSPNEGLSGNP
ADLERREAVFGKNFIPPKKPKTFLQLVWEALQDVTLIILEIAAIVSLGLSFYQPPEGDNALCGEVSVGEEEGEGE
TGWIEGAAILLSVVCVVLVTAFNDWSKEKQFRGLQSRIEQEQKFTVIRGGQVIQIPVADITVGDIAQVKYGDLLP
ADGILIQGNDLKIDESSLTGESDHVKKSLDKDPLLLSGTHVREGSGRMVVTAVGVNSQTGIIFTLLGAGGEEEEK
KDEKKKEKKNKKQDGAIENRNKAKAQDGAAMEMQPLKSEEGGDGDEKDKKKANLPKKEKSVLQGKLTKLAVQIGK
AGLLMSAITVIILVLYFVIDTFWVQKRPWLAECTPIYIQYFVKFFIIGVTVLVVAVPEGLPLAVTISLAYSVKKM
MKDNNLVRHLDACETMGNATAICSDKTGTLTMNRMTVVQAYINEKHYKKVPEPEAIPPNILSYLVTGISVNCAYT
SKILPPEKEGGLPRHVGNKTECALLGLLLDLKRDYQDVRNEIPEEALYKVYTFNSVRKSMSTVLKNSDGSYRIFS
KGASEIILKKCFKILSANGEAKVFRPRDRDDIVKTVIEPMASEGLRTICLAFRDFPAGEPEPEWDNENDIVTGLT
CIAVVGIEDPVRPEVPDAIKKCQRAGITVRMVTGDNINTARAIATKCGILHPGEDFLCLEGKDFNRRIRNEKGEI
EQERIDKIWPKLRVLARSSPTDKHTLVKGIIDSTVSDQRQVVAVTGDGTNDGPALKKADVGFAMGIAGTDVAKEA
SDIILTDDNFTSIVKAVMWGRNVYDSISKFLQFQLTVNVVAVIVAFTGACITQDSPLKAVQMLWVNLIMDTLASL
ALATEPPTESLLLRKPYGRNKPLISRTMMKNILGHAFYQLVVVFTLLFAGEKFFDIDSGRNAPLHAPPSEHYTIV
FNTFVLMQLFNEINARKIHGERNVFEGIFNNAIFCTIVLGTFVVQIIIVQFGGKPFSCSELSIEQWLWSIFLGMG
TLLWGQLISTIPTSRLKFLKEAGHGTQKEEIPEEELAEDVEEIDHAERELRRGQILWFRGLNRIQTQIRVVNAFR
SSLYEGLEKPESRSSIHNFMTHPEFRIEDSEPHIPLIDDTDAEDDAPTKRNSSPPPSPNKNNNAVDSGIHLTIEM
NKSATSSSPGSPLHSLETSL

FIGURE 1427

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GGGGGCCCTCCGCAGGTTCAGTCCTCGCGTCGGCCGCCCCGCGCTCAGTCGCGCGCACCTTCTCTCGCGGCCGGG
GGACCGCAGCGCGGGGCTAGCCCGGAGACCCGGCCACCGGCCTGGGGCGCCTTCACGCCGTCTCGGAGCGGATAA
TGCGGTGAGCAGGCACCACGCCGGCAGACTCGGCTGGATCTGCGCACAGCGGCAGGGATTGCGTGCGCCCGCGGG
AGGCCCGGGGCAGCGGCTGGGATCCTCAGCGGCGGCCGGTTTGTCCTGGTTGTGGTCAAGACTGGATGATGTAAC
TGGCTCTCTAGGAAGCCTCACTTGGCCGTAACCTCAGGAAGGTTCTCTTTGACCCCATCTCATTTCGAAGCCACT
TCTGAAGCCACTTGAGAAAAATGATGTGACAGTTCCTATCAAAAAGGATTCAGAAACATATACCATCTGTGAAGA
AAGTGGCCCTTTCTCCCGCTTGCAAAATAGACATTCTCAAATTCCAAAATGCCAGCCAAGACCCCAATTTACCTG
AAAGCAGCCAATAACAAGAAAGGAAAGAAATTTAAACTGAGGGACATTCTGTCTCCTGAT**ATG**ATCAGTCCCCCG
CTTGGAGACTTTCGCCACACCATCCACATTGGCAAAGAGGGCCAGCACGATGTCTTTGGAGATATTTCCTTTCTT
CAAGGGAACTACGAGCTTTTACCTGGAAACCAGGAGAAAGCACACCTGGGCCAGTTCCCTGGGCATAATGAGTTC
TTCCGGGCCAACAGCACCTCGGACTCTGTGTTCACAGAAACGCCCTCCCCGGTGCTCAAAAATGCCATCTCCCTC
CCGACCATTGGAGGATCCCAAGCTCTCATGTTGCCCTTATTGTCACCAGTGACATTTAATTCCAAACAGGAGTCC
TTCGGGCCAGCAAAGCTGCCCAGGCTTAGCTGCGAGCCCGTCATGGAGGAAAAAGCTCAGGAGAAAAGCAGTCTG
TTGGAGAATGGGACAGTCCACCAGGGAGACACCTCGTGGGGCTCCAGCGGTTCTGCATCTCAGTCCAGCCAAGGC
AGAGACAGCCACTCCTCCAGCCTGTCCGAACAGTACCCCGACTGGCCAGCCGAGGACATGTTTGACCATCCCACC
CCATGCGAGCTCATCAAGGGAAAGACTAAGTCAGAGGAGTCCCTCTCTGACCTTACAGGTTCCCTCCTCTCCCTG
CAGCTTGATCTTGGGCCCTCACTTTTGGATGAGGTGCTGAATGTAATGGATAAAAATAAG**TAA**CAAGATGCCAAC
TTTTTTCCTTTGGGGTAAAAGGTACAAAAACAAACTAACCACAGTTGAAGAGAAGGGCTTCCGGAGCTGTATTTG
CAGTTTTGTGTTGGGTTTTCTAAAATAATATTCTTACAAAGTATTTTTTTACCTGTTATGCCCTGTTTGCAAAAA
CAATTTAGAAAAAAACAACAAAGCAAAACCTATCTTGGCAAAAAAAGGAAGTGAGTCAGAGCCCATTTTCAGGAG
GCATTGGTGATGTTCGGCTCACATATTGTTTGCAGACACACAAGAAATCTGGCTTGGCCAGGATTGGCACTAGCT
ATGAAGGGCTGAGCGAGTCACATTAAGGAACTTCACGGAACTTTATAGCACTCCGACATTTTCTGAGCAAGAGGA
AGTCAAAATTTATTTAACACCTAAGCCTTTTTGTAGACTCTTTTCTATATATTGCTTAGGCTCACCATAGTGAAT
TCTCCAGTGTTAAAACTTTTCTGTTTTCACATTTGAACTTTATGGGTTTTGGGGATTTTCTTGTAGTTCTTATAT
ATCCCTATATATTATATCTATATTGCAAAATTTTGACTGTCAGCTACATGTTGGTAAGACACAGGCAAAGTATTA
CTGTAACTAAGTTATTTTTAAAGTTAAAATATATTTTTACGTGCCTTTGGCTTTTTATTGCAGAGTCTACATTTT
ATAGATTCTACATCAGATGTTGTCACTTATTTCCATTGGGATTCCATTGTAAGCTGTGTATGTGCGTGTTTGGAA
AAGTGTATTCATACTTAGTTTTTTTTTCTTCATCTGTTATCATACTTTTAACAGCAACCAATAACGGATTGTAAA
GTGTAAAGGCACAGGTTACTCATGATGCTTCTGCAGAGACTGTGGGCTACACCACATATGTTATTTGGAAATATA
GGTATTTTAGTACAGTACATACTTGCATTACATAGGTACTTCAAGCAACACAATAAAAGTAAATGATAAAGTGA
ACTTGCTTGTTTATAGTAATAAACAAGACCATAAGAGAATAAGTATAGCTAGAGAAATTGCTTCTCTGAAATGTA
CATGAGCCCTTAAGGTAAGAGATGATTTCCATCTACTCTCATTTTGATTACTTCCTTATGGTTTGAGAGGCTAGA
AACTGAGCCTCTCTACTTTTGGAAAAATGAACATGTGAGGTCAGATTTTTTTTTTTTTTAAGTCAGCACTGATG
CCACCCTCTCAGTGGTCATTTCTGAGCATCTTCCTGACTTGAACACCTTCTACAGCAAACTCTTGCAAGTCCAGT
TTCATCCCTGTAAGGCAAATGTCTTTTCACGCAGAAAGTGCCATATAGACGAGATAAAGGCAGCTAAAACGAGGG
CAGTAGAGAGCACTTACCCGACCCCAAGGTGCCAGAGATGCCCTGAGGATGGTGGTTAAGGAAACAGGAGCAGGA
AATGTACACACAGATTCCTGTCCCTTTGCCAACTACTCCTTCCCCATCAAAGAAAACACTTGCACACAGTAACT
ACCAGCTCCTTCTCTCAAACTTGTATTTCTCCTGGAAATGTATCTCAGAAATGACCTCCTCTCCCAACCACTTCA
ACGATTCTTTCTTTGGGTTTGGGGTTCTTGCAGTTCTATCATCTAAAATAACCTTTGGACTGCAGGTAAAATGCA
ATTAGGACAACTAACCAAGTAGACGAAACAAGTTCCCCTAGGCAGGGGTGTCCAATATTTTAGCTTCCCTGGACC
GCATTGGAAGAATTTTCTTGGGCCACATGTAAAACACACTAACACTAACCATAGTTGATGAGCTTAAAAAAATAA
AAATAGAAAATTGC
```

FIGURE 1428

MISPPLGDFRHTIHIGKEGQHDVFGDISFLQGNYELLPGNQEKAHLGQFPGHNEFFRANSTSDSVFTETPSPVLK
NAISLPTIGGSQALMLPLLSPVTFNSKQESFGPAKLPRLSCEPVMEEKAQEKSSLLENGTVHQGDTSWGSSGSAS
QSSQGRDSHSSSLSEQYPDWPAEDMFDHPTPCELIKGKTKSEESLSDLTGSLLSLQLDLGPSLLDEVLNVMDKNK

FIGURE 1429

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GGCGCCCAAGCCGCCGCCGCCAGATCGGTGCCGATTCCTGCCCTGCCCCGACCGCCAGCGCGACCATGTCCCATC
ACTGGGGGTACGGCAAACACAACGGACCTGAGCACTGGCATAAGGACTTCCCCATTGCCAAGGGAGAGCGCCAGT
CCCCTGTTGACATCGACACTCATACAGCCAAGTATGACCCTTCCCTGAAGCCCCTGTCTGTTTCCTATGATCAAG
CAACTTCCCTGAGGATCCTCAACAATGGTCATGCTTTCAACGTGGAGTTTGATGACTCTCAGGACAAAGCAGTGC
TCAAGGGAGGACCCCTGGATGGCACTTACAGATTGATTCAGTTTCACTTTCACTGGGGTTCACTTGATGGACAAG
GTTCAGAGCATACTGTGGATAAAAAGAAATATGCTGCAGAACTTCACTTGGTTCACTGGAACACCAAATATGGGG
ATTTTGGGAAAGCTGTGCAGCAACCTGATGGACTGGCCGTTCTAGGTATTTTTTTGAAGGTTGGCAGCGCTAAAC
CGGGCCTTCAGAAAGTTGTTGATGTGCTGGATTCCATTAAAACAAAGGGCAAGAGTGCTGACTTCACTAACTTCG
ATCCTCGTGGCCTCCTTCCTGAATCCCTGGATTACTGGACCTACCCAGGCTCACTGACCACCCCTCCTCTTCTGG
AATGTGTGACCTGGATTGTGCTCAAGGAACCCATCAGCGTCAGCAGCGAGCAGGTGTTGAAATTCCGTAAACTTA
ACTTCAATGGGGAGGGTGAACCCGAAGAACTGATGGTGGACAACTGGCGCCCAGCTCAGCCACTGAAGAACAGGC
AAATCAAAGCTTCCTTCAAATAAGATGGTCCCATAGTCTGTATCCAAATAATGAATCTTCGGGTGTTTCCCTTTA
GCTAAGCACAGATCTACCTTGGTGATTTGGACCCTGGTTGCTTTGTGTCTAGTTTTCTAGACCCTTCATCTCTTA
CTTGATAGACTTACTAATAAAATGTGAAGACTAGACCAATTGTCATGCTTGACACAACTGCTGTGGCTGGTTGGT
GCTTTGTTTATGGTAGTAGTTTTTCTGTAACACAGAATATAGGATAAGAAATAAGAATAAAGTACCTTGACTTTG
TTCACAGCATGTAGGGTGATGAGCACTCACAATTGTTGACTAAAATGCTGCTTTTAAAACATAGGAAAGTAGAAT
GGTTGAGTGCAAATCCATAGCACAAGATAAATTGAGCTAGTTAAGGCAAATCAGGTAAAATAGTCATGATTCTAT
GTAATGTAAACCAGAAAAAATAAATGTTCATGATTTCAAGATGTTATATTAAAGAAAACTTTAAAAATTATTAT
ATATTTATAGCAAAGTTATCTTAAATATGAATTCTGTTGTAATTTAATGACTTTTGAATTACAGAGATATAAATG
AAGTATTATCTGTAAAAATTGTTATAATTAGAGTTGTGATACAGAGTATATTTCCATTCAGACAATATATCATAA
CTTAATAAATATTGTATTTTAGATATATTCTCTAATAAAATTCAGAATTCT
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FIGURE 1430

MSHHWGYGKHNGPEHWHKDFPIAKGERQSPVDIDTHTAKYDPSLKPLSVSYDQATSLRILNNGHAFNVEFDDSQD
KAVLKGGPLDGTYRLIQFHFHWGSLDGQGSEHTVDKKKYAAELHLVHWNTKYGDFGKAVQQPDGLAVLGIFLKVG
SAKPGLQKVVDVLDSIKTKGKSADFTNFDPRGLLPESLDYWTYPGSLTTPPLLECVTWIVLKEPISVSSEQVLKF
RKLNFNGEGEPEELMVDNWRPAQPLKNRQIKASFK

FIGURE 1431

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AGCGTCGGACTACCGTTGGTTTCCGCAACTTCCTGGATTATCCTCGCCAAGGACTTTGCAATATATTTTTCCGCC
TTTTCTGGAAGGATTTCGCTGCTTCCCGAAGTCTTGGACGAGCGCTCTAGCTCTGTGGGAAGGTTTTGGGCTCTC
TGGCTCGGATTTTGCAATTTCTCCCTGGGGACTGCCGTGGAGCCGCATCCACTGTGGATTATAATTGCAACATGA
CGCTGGAAGAGCTCGTGGCGTGCGACAACGCGGCGCAGAAGATGCAGACGGTGACCGCCGCGGTGGAGGAGCTTT
TGGTGGCCGCTCAGCGCCAGGATCGCCTCACAGTGGGGGTGTACGAGTCGGCCAAGTTGATGAATGTGGACCCAG
ACAGCGTGGTCCTCTGCCTCTTGGCCATTGACGAGGAGGAGGAGGATGACATCGCCCTGCAAATCCACTTCACGC
TCATCCAGTCCTTCTGCTGTGACAACGACATCAACATCGTGCGGGTGTCGGGCATGCAGCGCCTGGCGCAGCTCC
TGGGAGAGCCGGCCGAGACCCAGGGCACCACCGAGGCCCGAGACCTGCATTGTCTCCTGGTCACGAACCCTCACA
CGGACGCCTGGAAGAGCCACGGCTTGGTGGAGGTGGCCAGCTACTGCGAAGAAAGCCGGGGCAACAACCAGTGGG
TCCCCTACATCTCTCTTCAGGAACGCTGAGGCCCTTCCCAGCAGCAGAATCTGTTGAGTTGCTGCCACAAACAAA
AAATACAATAAATATTTGAACCCCCTCCCCCCCAGCACAACCCCCCCAAAACAACCCAACCCACGAGGACCATCG
GGGGCAGAGTCGTTGGAGACTGAAGAGGAAGAGGAGGAGGAGAAGGGGAGTGAGCGGTCCGCCCCCAGGGACGCT
CTCCAGGAGCTGGCGGCCGCCGATCAGATGGAGAAGGGGGGGACCCAGGCCAGCAGGAGACAGGACCCCCGAAGCT
GAGGCCTTGGGATGGAGCAGAAGCCGGAGTGGCGGGGCACGCTGCCGCCTTCCCCATCACGGAGGGTCCAGACTG
TCCACTCGGGGGTGGAGTGAGACTGACTGCAAGCCCCACCCTCCTTGAGACTGGAGCTGGCGTCTGCATACGAGA
GACTTGGTTGAACTTGGTTGGTCCTTGTCTGCACCCTCGACAAGACCACACTTTGGGACTTGGGAGCTGGGGCTG
AAGTTGCTCTGTACCCATGAACTCCCAGTTTGCGAATTATAGAGACAATCTATTTTGTTACTTGCACTTGTTATT
CGAACCACTGAGAGCGAGATGGGAAGCATAGATATCTATATTTTTATTTCTACTATGAGGGCCTTGTAATAAATT
TCTAAAGCCTCTGAAAAAAAAAAAAAAA
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FIGURE 1432

MTLEELVACDNAAQKMQTVTAAVEELLVAAQRQDRLTVGVYESAKLMNVDPDSVVLCLLAIDEEEEDDIALQIHF
TLIQSFCCDNDINIVRVSGMQRLAQLLGEPAETQGTTEARDLHCLLVTNPHTDAWKSHGLVEVASYCEESRGNNQ
WVPYISLQER

FIGURE 1433

GCTCTTTCCAACGCTGTAAAAAGGACAGAGGCTGTTCCCTATGGCAGAAGGCAACCACAGAAAAAAGCCACTTAA
GGTGTTGGAATCCCTGGGCAAAGATTTCCTCACTGGTGTTTTGGATAACTTGGTGGAACAAAATGTACTGAACTG
GAAGGAAGAGGAAAAAAAGAAATATTACGATGCTAAAACTGAAGACAAAGTTCGGGTCATGGCAGACTCTATGCA
AGAGAAGCAACGTATGGCAGGACAAATGCTTCTTCAAACCTTTTTTAACATAGACCAAATATCCCCCAATAAAAA
AGGTGATAAATTGGGTCACAGAGGCAGAAATCACAATTTATGTTCTGCAATATCCTGCAGCTCATCCGAAT**ATG**G
AGGCTGGACCACCTGAGTCAGGAGAATCTACAGATGCCCTCAAGCTTTGTCCTCATGAAGAATTCCTGAGACTAT
GTAAAGAAAGAGCTGAAGAGATCTATCCAATAAAGGAGAGAAACAACCGCACACGCCTGGCTCTCATCATATGCA
ATACAGAGTTTGACCATCTGCCTCCGAGGAATGGAGCTGACTTTGACATCACAGGGATGAAGGAGCTACTTGAGG
GTCTGGACTATAGTGTAGATGTAGAAGAGAATCTGACAGCCAGGGATATGGAGTCAGCGCTGAGGGCATTTGCTA
CCAGACCAGAGCACAAGTCCTCTGACAGCACATTCTTGGTACTCATGTCTCATGGCATCCTGGAGGGAATCTGCG
GAACTGTGCATGATGAGAAAAAACCAGATGTGCTGCTTTATGACACCATCTTCCAGATATTCAACAACCGCAACT
GCCTCAGTCTGAAGGACAAACCCAAGGTCATCATTGTCCAGGCCTGCAGAGGTGCAAACCGTGGGGAACTGTGGG
TCAGAGACTCTCCAGCATCCTTGGAAGTGGCCTCTTCACAGTCATCTGAGAACCTGGAGGAAGATGCTGTTTACA
AGACCCACGTGGAGAAGGACTTCATTGCTTTCTGCTCTTCAACGCCACACAACGTGTCCTGGAGAGACAGCACAA
TGGGCTCTATCTTCATCACACAACTCATCACATGCTTCCAGAAATATTCTTGGTGCTGCCACCTAGAGGAAGTAT
TTCGGAAGGTACAGCAATCATTTGAAACTCCAAGGGCCAAAGCTCAAATGCCCACCATAGAACGACTGTCCATGA
CAAGATATTTCTACCTCTTTCCTGGCAAT**TGA**AAATGGAAGCCACAAGCAGCCCAGCCCTCCTTAATCAACTTCA
AGGAGCACCTTCATTAGTACAGCTTGCATATTTAACATTTTGTATTTCAATAAAAGTGAAGACAAACG

FIGURE 1434

MEAGPPESGESTDALKLCPHEEFLRLCKERAEEIYPIKERNNRTRLALIICNTEFDHLPPRNGADFDITGMKELL
EGLDYSVDVEENLTARDMESALRAFATRPEHKSSDSTFLVLMSHGILEGICGTVHDEKKPDVLLYDTIFQIFNNR
NCLSLKDKPKVIIVQACRGANRGELWVRDSPASLEVASSQSSENLEEDAVYKTHVEKDFIAFCSSTPHNVSWRDS
TMGSIFITQLITCFQKYSWCCHLEEVFRKVQQSFETPRAKAQMPTIERLSMTRYFYLFPGN

FIGURE 1435

CACGAGGAAGACGTGGATGGCGGGAATTCTCGCTTCTGGCCTGGGTGAGCTAGAAGGGAGAAGCAAGGACATTGG
AGTCCCTATCACCGGTTGCCTAGACAACTTCATGGGAAGGCCCTTGGGAATCTGAG**ATG**GAGCAGGCGAACCCTT
TACGTCCAGATGGCGAGTCCAAAGGAGGTGTTTTAGCTCACTTGGAAAGGCTAGAGACCCAAGTGAGCAGATCCC
GTAAACAGTCTGAAGAGCTGCAGAGCGTGCAGGCCCAGGAAGGTGCTCTTGGAACCAAGATTCATAAACTAAGGC
GTCTGCGAGATGAGCTGAGGGCTGTGGTGCGGCACCGGCGAGCCAGCGTGAAAGCATGTATTGCCAATGTAGAAC
CCAACCAAACAGTGGAGATCAATGAGCAAGAAGCATTGGAAGAGAAATTGGAAAATGTGAAAGCCATTCTGCAGG
CATATCATTTTACAGGCCTCAGTGGTAAACTGACCAGCCGAGGAGTTTGTGTCTGCATCAGTACTGCTTTTGAGG
GGAACCTATTGGATTCCTATTTTGTGGACCTTGTCATACAGAAACCACTCCGGATACATCACCATTCAGTCCCAG
TCTTCATTCCCCTGGAAGAGATAGCTGCAAAATATTTACAGACCAACATCCAGCACTTCCTGTTCAGTCTCTGCG
AGTACCTGAATGCTTACTCTGGGAGGAAGTACCAGGCAGACCGGCTTCAGAGTGACTTTGCAGCCCTCCTGACTG
GGCCCTTGCAGAGAAACCCACTGTGTAACTTGCTGTCATTTACTTACAAACTGGATCCAGGGGGTCAGTCCTTCC
CGTTCTGTGCTAGATTGCTGTATAAGGACCTCACAGCAACTCTTCCCACTGACGTCACCGTGACATGTCAAGGAG
TGGAAGTATTATCCACTTCATGGGAGGAGCAACGAGCATCTCATGAAACTCTGTTCTGTACGAAGCCCTTGCATC
AAGTGTTTGCCTCATTTACAAGAAAAGGAGAAAAGTTGGATATGAGTCTGGTCTCC**TAA**TAGATTGTTTTCACTG
CACTGGGAGCACATCAGAGAAATAAATCCCCCCTCCCCTGCCAGGTGAAAGGAAATATTGCACTTTCTGTTCTCA
TGACTAAGGGGACAGGAGTTCCAGAAGAACCTTTCAAGATGATCAGGAACACCAGGACGAGGGCCGTCTCACCTC
ACTCGGACCACATGGAGACCTCCCTTCAAAATGGGAGCCATGTCCTGCCCCACCAAGCCCTGTCTGAAGTGGAGC
TTCCCCGCCTGTGCTCCCTCCACAGTCCCGGAAAGCCCAGCGGCAAAGGCAGCTTTGTCCCAGCTCTGCCACCCT
CCTGCTCACAGTGGTCAGGGCCCCTCAGGGGCAAGGACGGCAGGGATTGGAACGAGGGCTCTGGAAGGACTGTTC
AGCCCTATGCCTAAGACCCCTATGCTGGGGACACTACAGGCACACAGAGGAATAGCAGGGCCACCCTCAGAGCTC
ACACATCCACGAACAAATGAAGGCTGAGGAGGTTTCTAAACCTAAAGTCCATGAGTGTGCACTTCAATCCAGGAA
GGTCGGGACTTCCTTCAGTTTCAAAAAATAAATTCTCCCTTCCGGTTTGGACTGTTAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAA

FIGURE 1436

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MEQANPLRPDGESKGGVLAHLERLETQVSRSRKQSEELQSVQAQEGALGTKIHKLRRLRDELRAVVRHRRASVKA
CIANVEPNQTVEINEQEALEEKLENVKAILQAYHFTGLSGKLTSRGVCVCISTAFEGNLLDSYFVDLVIQKPLRI
HHHSVPVFIPLEEIAAKYLQTNIQHFLFSLCEYLNAYSGRKYQADRLQSDFAALLTGPLQRNPLCNLLSFTYKLD
PGGQSFPFCARLLYKDLTATLPTDVTVTCQGVEVLSTSWEEQRASHETLFCTKPLHQVFASFTRKGEKLDMSLVS
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FIGURE 1437

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GGGAGCCGCGCGGGAGCAGCGCAGCTACGGCGGCGGCAGCGGCGGCGCGGTTGCGATTCCGAGCCGTTGAGACGC
CTCTGCGGCAGCTGGTGGCGCAGGTGGCTTGCGTGGACGCGGGTAGAGGCGACCGGCCAGCAACCGCAGCGTCGG
CGCCCGCGGCCCCGGCAGCAGGCGCGTCGGGACGCCCCGAGGCATCCTCCCCCGCCCGCGGGCCCGGTAGCTGGG
CCCGCGTCCGCCGCCCGCATCCCCGCGCCGCCGCATCTCCTCGCCGCCTCCCGGGCTTCGGACCCCCGGTCTCGC
CCCCGGAAAC**ATG**ACTCGCGATTTCAAACCTGGAGACCTCATCTTCGCCAAGATGAAAGGTTATCCCCATTGGCC
AGCTCGAGTAGACGAAGTTCCTGATGGAGCTGTAAAGCCACCCACAAACAAACTACCCATTTTCTTTTTTGGAAC
TCATGAGACTGCTTTTTTAGGACCAAAGGATATATTTCCTTACTCAGAAAATAAGGAAAAGTATGGCAAACCAAA
TAAAAGAAAAGGTTTTAATGAAGGTTTATGGGAGATAGATAACAATCCAAAAGTGAAATTTTCAAGTCAACAGGC
AGCAACTAAACAATCAAATGCATCATCTGATGTTGAAGTTGAAGAAAAGGAAACTAGTGTTTCAAAGGAAGATAC
CGACCATGAAGAAAAAGCCAGCAATGAGGATGTGACTAAAGCAGTTGACATAACTACTCCAAAAGCTGCCAGAAG
GGGGAGAAAGAGAAAGGCAGAAAAACAAGTAGAAACTGAGGAGGCAGGAGTAGTGACAACAGCAACAGCATCTGT
TAATCTAAAAGTGAGTCCTAAAAGAGGACGACCTGCAGCTACAGAAGTCAAGATTCCAAAACCAAGAGGCAGACC
CAAAATGGTAAAACAGCCCTGTCCTTCAGAGAGTGACATCATTACTGAAGAGGACAAAAGTAAGAAAAAGGGGCA
AGAGGAAAAACAACCTAAAAAGCAGCCTAAGAAGGATGAAGAGGGCCAGAAGGAAGAAGATAAGCCAAGAAAAGA
GCCGGATAAAAAAGAGGGGAAGAAGAAGTTGAATCAAAAAGGAAAAATTTAGCTAAACAGGGGTTACTTCAAC
CTCCGATTCTGAAGAAGAAGGAGATGATCAAGAAGGTGAAAAGAAGAGAAAAGGTGGGAGGAACTTTCAGACTGC
TCACAGAAGGAATATGCTGAAAGGCCAACATGAGAAAGAAGCAGCAGATCGAAAACGCAAGCAAGAGGAACAAAT
GGAAACTGAGCAGCAGAATAAAGATGAAGGAAAGAAGCCAGAAGTTAAGAAAGTGGAGAAGAAGCGAGAAACATC
AATGGATTCTCGACTTCAAAGGATACATGCTGAGATTAAAAATTCACTCAAAATTGATAATCTTGATGTGAACAG
ATGCATTGAGGCCTTGGATGAACTTGCTTCACTTCAGGTCACAATGCAACAAGCTCAGAAACACACAGAGATGAT
TACTACACTGAAAAAAATACGGCGATTCAAAGTTAGTCAGGTAATCATGGAAAAGTCTACAATGTTGTATAACAA
GTTTAAGAACATGTTCTTGGTTGGTGAAGGAGATTCCGTGATCACCCAAGTGCTGAATAAATCTCTTGCTGAACA
AAGACAGCATGAGGAAGCGAATAAAACCAAAGATCAAGGGAAGAAAGGGCCAAACAAAAAGCTAGAGAAGGAACA
AACAGGGTCAAAGACTCTAAATGGAGGATCTGATGCTCAAGATGGTAATCAGCCACAACATAACGGGGAGAGCAA
TGAAGACAGCAAAGACAACCATGAGCCAGCACGAAGAAAAAGCCATCCAGTGAAGAGAGAGAGACTGAAATATC
TCTGAAGGATTCTACACTAGATAAC**TAG**GTTGACATACCTGGAATATAGAGAACACTTGAGAAGTTTGTAATGGT
TTTCATTTGAAATAGACTGCTGGAAGTTTAAATTTTTATAAGCATAGGTTTGATGTTGAAAACTTGTTTTGAGGG
AGAAAATCCCTTTGTTTTAAAGTAAAGTAAACATTATCGCTAAGTGTAACTTGTGCAGTATTAACAGCTACATTA
TACAGTAAATGTGGGATAAAATCCATTTAGAAAATGTTAAACTGCTTTTCCAGACATGGTTGTAGCATATTTTCA
ATTAGTGTGTGTATGTTAATGTGTAATTGATAGTAGAACAAAGTTACATTTTTAAAACTGCTACTTGTATAAACC
TTGCCTCTTTTCCCAAATACTGTGGGTTTTGTGCATAGTTTTTACAAACCTTGGATTTACCAGACTGTCTTTTCA
CTGTTTGTGGGTTTTGTAGAAGTTACACATTTTTATGGTAGATAAAATGTTACTTCTATACAAGTACTCACTCCC
TTTTTATCAAAAGTTAATTTTAATCTCACAGTCTACATTGTGCTACATTATCCAGCTTCTTTGGAACAATGTGTG
CTCTGTATGGTTTTTTTTGGTATGACAACTAATTAAGCAACTGACATTGAACTGAGAATTCTACAAACTATAAAA
CATTAATTTTTGAAGGTAATTTAGTTTTGTGGCTGGGCATTCAGTGAAGTCTTAGGACTTCTTTGCAGACAACTG
ACTGGGTATATATAGGAATGAATCTGGCTTTAGGGTTAAATCATTTAAGGTCCTTTTATAGGCAGGCACTAGTAA
CTAAAACTGAAAACTAAGTAAGTTTATTTTTGAGGAATGTTGTTAAAAATGTCTTTAGGAAGTCACTAAAACTTA
ATTGGAAGAAAAATCATGATGCTTATACAATAAATATGAATAAATGTTATATAAGGAAACTCACCTATTTGAAA
TCATGGCTATATTGTTTTTATTTTCTAGATTCCAAAAATACAAACACTAGTTGTTCCAGCATTGTACTTTGATAA
GTCTGTACATTGACGTGTATGGACTAAATCCAGGGTAAAATCAATGTTACAAAATTTAAGGGTATGTTAACTAAA
GGATAGCATTTCTAAGATATTTTGAATATTAGGGTCATTTGGCACTTCTCAGCAAGTAGGATACTTCTCATGTTT
TTGAAATTATATGAATATGGAAAAAAATGGCTTAAGACCAGCGTCTCTGTATGACATTGTGTGGTTGACCCTCTG
AGATAACTGTTTTCATCTACAGAATTGCATTTTTGCTTTTAAAGAGGTCTTATAATGGAACTAGGAATCACCGTT
TTGAGAGAACCTGCATATATACCAGTCATTATCTGTTGGTCCTTATACAGTTTTAACTTACTTAGATTTATTCT
AGTTAAGCCATAAGTTCAACGTGTAAACTTGTTTTCATTAAAGAATTTTTCTATCAAAAAAAAAAAAAAAAAAAA
AA
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FIGURE 1438

MTRDFKPGDLIFAKMKGYPHWPARVDEVPDGAVKPPTNKLPIFFFGTHETAFLGPKDIFPYSENKEKYGKPNKRK
GFNEGLWEIDNNPKVKFSSQQAATKQSNASSDVEVEEKETSVSKEDTDHEEKASNEDVTKAVDITTPKAARRGRK
RKAEKQVETEEAGVVTTATASVNLKVSPKRGRPAATEVKIPKPRGRPKMVKQPCPSESDIITEEDKSKKKGQEEK
QPKKQPKKDEEGQKEEDKPRKEPDKKEGKKEVESKRKNLAKTGVTSTSDSEEEGDDQEGEKKRKGGRNFQTAHRR
NMLKGQHEKEAADRKRKQEEQMETEQQNKDEGKKPEVKKVEKKRETSMDSRLQRIHAEIKNSLKIDNLDVNRCIE
ALDELASLQVTMQQAQKHTEMITTLKKIRRFKVSQVIMEKSTMLYNKFKNMFLVGEGDSVITQVLNKSLAEQRQH
EEANKTKDQGKKGPNKKLEKEQTGSKTLNGGSDAQDGNQPQHNGESNEDSKDNHEASTKKKPSSEERETEISLKD
STLDN

FIGURE 1439

GGCACGAGGCTGTGCTCCCGGCGCTGACGTGTCTGGGCGGTCGGCTTCCACTCCTTCAGGCGTCGGCAGCCACTA
GTCGTGGCGAGAGGGGCGGGGTGGCCGGGGCTGGCGCTCCACTTGGCCCCCGCTCCCGGCCCGCCCCGCCGCCGC
GGCCCCCCGGATGAGGGTATATATTCGGAGCGAGCGCGGGACGCCGATGAGTGGCCGCGCGGAAGGAGCTGGAGA
CGGTCGTAGCTGCGGTCGCGCCGAGAAAGGTTTACAGGTACATACATTACACCCCTATTTCTACAAAGCTTGGCT
ATTAGAGCATT**ATG**AACATTAATGACCTCAAACTCACGTTGTCCAAAGCTGGGCAAGAGCACCTACTACGTTTCT
GGAATGAGCTTGAAGAAGCCCAACAGGTAGAACTTTATGCAGAGCTCCAGGCCATGAACTTTGAGGAGCTGAACT
TCTTTTTCCAAAAGGCCATTGAAGGTTTTAACCAGTCTTCTTACCAAAAGAATGTGGATGCACGAATGGAACCTG
TGCCTCGAGAGGTATTAGGCAGTGCTACAAGGGATCAAGATCAGCTCCAGGCCTGGGAAAGTGAAGGACTTTTCC
AGATTTCTCAGAATAAAGTAGCAGTTCTTCTTCTAGCTGGTGGGCAGGGGACAAGACTCGGCGTTGCATATCCTA
AGGGGATGTATGATGTTGGTTTGCCATCCCGTAAGACACTTTTTCAGATTCAAGCAGAGCGTATCCTGAAGCTAC
AGCAGGTTGCTGAAAAATATTATGGCAACAAATGCATTATTCCATGGTATATAATGACCAGTGGCAGAACAATGG
AATCTACAAAGGAGTTCTTCACCAAGCACAAGTACTTTGGTTTAAAAAAAGAGAATGTAATCTTTTTTCAGCAAG
GAATGCTCCCCGCCATGAGTTTTGATGGGAAAATTATTTTGGAAGAGAAGAACAAAGTTTCTATGGCTCCAGATG
GGAATGGTGGTCTTTATCGGGCACTTGCAGCCCAGAATATTGTGGAGGATATGGAGCAAAGAGGCATTTGGAGCA
TTCATGTCTATTGTGTTGACAACATATTAGTAAAAGTGGCAGACCCACGGTTCATTGGATTTTGCATTCAGAAAG
GAGCAGACTGTGGAGCAAAGGTGGTAGAGAAAACGAACCCTACAGAACCAGTTGGAGTGGTTTGCCGAGTGGATG
GAGTTTACCAGGTGGTAGAATATAGTGAGATTTCCCTGGCAACAGCTCAAAAACGAAGCTCAGACGGACGACTGC
TGTTCAATGCGGGGAACATTGCCAACCATTTCTTCACTGTACCATTTCTGAGAGATGTTGTCAATGTTTATGAAC
CTCAGTTGCAGCACCATGTGGCTCAAAAGAAGATTCCTTATGTGGATACCCAAGGACAGTTAATTAAGCCAGACA
AACCCAATGGAATAAAGATGGAAAAATTTGTCTTTGACATCTTCCAGTTTGCAAAGAAGTTTGTGGTATATGAAG
TATTGCGAGAAGATGAGTTTTCCCCACTAAAGAATGCTGATAGTCAGAATGGGAAAGACAACCCTACTACTGCAA
GGCATGCTTTGATGTCCCTTCATCATTGCTGGGTCCTCAATGCAGGGGGCCATTTCATAGATGAAAATGGCTCTC
GCCTTCCAGCAATTCCCCGCTTGAAGGATGCCAATGATGTACCAATCCAATGTGAAATCTCTCCTCTTATCTCCT
ATGCTGGAGAAGGATTAGAAAGTTATGTGGCAGATAAAGAATTCCATGCACCTCTAATCATCGATGAGAATGGAG
TTCATGAGCTGGTGAAAAATGGTATT**TGA**ACCAGATACCAAGTTTTGTTTGCCACGATAGGAATAGCTTTTATTT
TTGATAGACCAACTGTGAACCTACAAGACGTCTTGGACAACTGAAGTTTAAATATCCACAGGGTTTTATTTTGCT
TGTTGAACTCTTAGAGCTATTGCAAACTTCCCAAGATCCAGATGACTGAATTTCAGATAGCATTTTTATGATTCC
CAACTCATTGAAGGTCTTATTTATATAATTTTTTCCAAGCCAAGGAGACCATTGGCCATCCAGGAAATTTCGTAC
AGCTGAAATATAGGCAGGATGTTCAACATCAGTTACTTGCAGCTGGAAGCATTTGTTTTGAAGTTGTACATAG
TAATAATATGTCATTGTACATGTTGAAAGGTTTCTATGGTACTAAAAGTTTGTTTATTTTATCAAACATTAAGC
TTTTTTAAGAAAATAATTGGGCAGTGAAATAAATGTATCTTCTTGTCTCTGGAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAA

1618/2825
FIGURE 1440

MNINDLKLTLSKAGQEHLLRFWNELEEAQQVELYAELQAMNFEELNFFFQKAIEGFNQSSYQKNVDARMEPVPRE
VLGSATRDQDQLQAWESEGLFQISQNKVAVLLLAGGQGTRLGVAYPKGMYDVGLPSRKTLFQIQAERILKLQQVA
EKYYGNKCIIPWYIMTSGRTMESTKEFFTKHKYFGLKKENVIFFQQGMLPAMSFDGKIILEEKNKVSMAPDGNGG
LYRALAAQNIVEDMEQRGIWSIHVYCVDNILVKVADPRFIGFCIQKGADCGAKVVEKTNPTEPVGVVCRVDGVYQ
VVEYSEISLATAQKRSSDGRLLFNAGNIANHFFTVPFLRDVVNVYEPQLQHHVAQKKIPYVDTQGQLIKPDKPNG
IKMEKFVFDIFQFAKKFVVYEVLREDEFSPLKNADSQNGKDNPTTARHALMSLHHCWVLNAGGHFIDENGSRLPA
IPRLKDANDVPIQCEISPLISYAGEGLESYVADKEFHAPLIIDENGVHELVKNGI

FIGURE 1441

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TGCTGCTGTCCTGGAGGGAAATGGAGCAGGCTGTGGAGCTCTGTGGGCGGGTAGGAGACTCATTTGGGTTTCGGA
ACTTACCAAGGGGGTGAGATTTTGTGCTCCCACTTTTCACTTTCTCATCAAACACTGGGTCGATCTCTGTCAAAA
ATCAGGTGTTCCTCACCATGCTTTGAGCTTAACTGGACCAGCTGAAAAGAGGCCAAGAGAGTAGCCAGTGAAGGG
AGCCCCTCTGTGGCCAGATGCAAGAGCTGCATGAATGGACAGAGATGGTCCAGGTTTAAATAAGAAGCAAGGGTT
AGGTTCCCTTGGGGAAAAGCCAAGACCATTTCCTGTTAGGAAGGGCATTGGATGGATGATCAACACTCCCTCTTG
TCGAAGGTTTTTGACTAATTTTGTTGGGATGCTAAATCCATAGGAAATAAAAGGTCTAGGCAGAAAGTCTCAGGG
CAGCGTAAATCAGATGTCACCAAAAAAAGTTAATTATGAAGGCAAAGGAAATACATGTGACTTAATGAACCTCAC
ACAAACTGAAGGTTGAAGTCAGGCTCCGGGGCTTTTTCCTGGACTTATCCTCTGTTTTCCCCTGTGTACTTGGGC
AAGGATCTTCACCTGTGTCTTAGTATCGATTTTTATGAATCAGTACTGATGGAGTATATGTGTGTTTAATGGTGA
ATATTAACCATAGAAGGGCTGAGTGCTCCTCCCCATCTTGGGACTCATAATCTGTGAAATAAAACAGTCTGGGCC
TCCCTGCCCGGGTAGCATCAGGATAGACAGATGAAGAGAAGAGAAAGTAATGTGTCTTGGGCATCTTCTGTATGC
CAGGCACCATGCCAGAGGCTTTAAGTACTTCATCTTACTTGACTCCTCAGATGGCCCTGTTAGAAGCCTATTTTA
TGCAAAAGGAAACTGTAGCTGGGGGTAAGTAACTTGCCAAGGGGTCACACAGCTAGAAAGCGGTGGACCCTAGAT
GCAGGCGCAGGGCATTCAGACCCCACAGTCCACATTCCTTTGAGCCAGTCCATTGAGGGTCCTCAGGGAATGTGG
CGGGTCCCCTGGTCTCGCTCCCCGCAGATCTTGCATCTCAGCATGCGCCTACCACATCAGTTGACATTAGCACA
GCTTTTCCATTAGGAGAACGAAGTGAAACTCCTGGTAGAACGG**ATG**ATGGCTCTGCAGACCGACATTGTGGACTT
ACAGAGGAGCCCCATGGGCCGGAAGCAGGGGGGAACGCTGGACGACCTAGAGGAGCAAGCAAGGGAGCTGTACAG
GAGACTAAGGGAAAAACCTCGAGACCAGCGAACTGAGGGTGACAGTCAGGAAATGGTACGGCTGCTGCTTCAGGC
AATTCAGAGCTTCGAGAAGAAAGTGCGAGTGATCTATACGCAGCTCAGTAAAACTGTGGTTTGCAAGCAGAAGGC
GCTGGAACTGTTGCCCAAGGTGGAAGAGGTGGTGAGCTTAATGAATGAGGATGAGAAGACTGTTGTCCGGCTGCA
GGAGAAGCGGCAGAAGGAGCTCTGGAATCTCCTGAAGATTGCTTGTAGCAAGGTCCGTGGTCCTGTCAGTGGAAG
CCCGGATAGCATGAATGCCTCTCGACTTAGCCAGCCTGGGCAGCTGATGTCTCAGCCCTCCACGGCCTCCAACAG
CTTACCTGAGCCAGCCAAGAAGAGTGAAGAACTGGTGGCTGAAGCACATAACCTCTGCACCCTGCTAGAAAATGC
CATACAGGACACTGTGAGGGAACAAGACCAGAGTTTCACGGCCCTAGACTGGAGCTGGTTACAGACGGAAGAAGA
AGAGCACAGCTGCCTGGAGCAGGCCTCA**TGA**TGTGGGGGGACTCGACCCCCTGACATGGGGCAGCCCATAGCAGG
CCTTGTGCGGTGGGGGGACTCGACCCCCTGACATGGGGCTGCCTGGAGCAGGCCGCGTGACGTGGGGCTGCCTGG
CCGCGGCTCTCACATGGTGGTTCCTGCTGCACTGATGGCCCAGGGGTCTCTGGTATCCAGATGGAGCTCTCGCTT
CCTCAGCAGCTGTGACTTTCACCCAGGACCCAGGACGCAGCCCTCCGTGGGCACTGCCGGCGCCTTGTCTGCACA
CTGGAGGTCCTCCATTACAGAGGCCCAGCGCACATCGCTGGCCCCACAAACGTTCAGGGGTACAGCCATGGCAGC
TCCTTCCTCTGCCGTGAGAAAAGTGCTTGGAGTACGGTTTGCCACACACGTGACTGGACAGTGTCCAATTCAAAT
CTTTCAGGGCAGAGTCCGAGCAGCGCTTGGTGACAGCCTGTCCTCTCCTGCTCTCCAAAGGCCCTGCTCCCTGTC
CTCTCTCACTTTACAGCTTGTGTTTCTTCTGGATTCAGCTTCTCCTAAACAGACAGTTTAATTATAGTTGCGGCC
TGGCCCCATCCTCACTTCCTCTTTTTATTTCACTGCTGCTAAAATTGTGTTTTTACCTACTACTTTGGTGGTTGT
CCTCTTTTCGGCAAAGTTGGAGCGAGTGCCAAGCTCTCCATCTGTGGTCCTTTCTGCCAAGAGCGACTCATAGTA
ACCAGGATGGGAGAGCAGCTGCCTTATTCTGAATCCCAAAAATTACTTGGGGGTGATTGTCACAGAGGAGGGACA
GAAAGGGTATCTGCTGACCACCAGCCTGCCTACCCATGCCCATGTCTCCATTCCTGCTCAAGCGTGTGTGCTGGG
CCGGGGAGTCCCTGTCTCTCACAGCATCTAGCAGTATTATTAAATGGATTCATTTTAAAAATAGCTCCTATATTT
TGTAACATGTCTCAAACACTCATACTGGGTTCCACAATCCACTGTTAGAATACCTATGGTTAGGGCTTCTGAACT
AAAATAATGGAAAATTTTAACAATTTGTATAGTGCCTGGATCATTACTAGTGCCATAACCCTGCTTCTTCAACAT
TTCACAGAACTTCTCTTTTATATAAAGGCAAGAGCACAAAATGAGTTCAGATGATCACAAACAGGTGAGTTTTGT
TGGAGAAGAAAGTTGGAGTAGGAGACTTTCACAAGTGGTTTCCATGGAGATAGAATGAAGCATTCTGTGGTCAAG
TAAGTTAGGGAGCTATTCATGTTTCACTTGCTTTGTGGAGATTCACACTATGCACTGGGAAAGTATCTGAAAAG
TCTTATAATAAAGAAACAGGCTTAACTTTGTGTAAGAACACTGTTTATCAATGTCATTTGGCTATAGAAACATTT
TCTCCTGCTGATTGTGTGTGTGAAACATGTATTAACATTCCAATGAACTAGCATTTAATAAAGCACAATTTTGGA
AACCCTGGTAAATGACAGTGGGAAATAACACCCGAAAGGCAAGGACGGGCAGATTGGGGAGGGAAAGGATGTTGG
GCTAAGGGCTGTGAGCTTATGTTACAGGCAACTGAGCCACTGAAGAATTTTGACGAAGAAAATGCCAACCAAAGC
AGTCATTTTAAAAGTTTATGGCTGTTCAGTTACAGGACAAGTTGTGAAAAGAAAGAAAAAAAAATGG
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FIGURE 1442

MMALQTDIVDLQRSPMGRKQGGTLDDLEEQARELYRRLREKPRDQRTEGDSQEMVRLLLQAIQSFEKKVRVIYTQ
LSKTVVCKQKALELLPKVEEVVSLMNEDEKTVVRLQEKRQKELWNLLKIACSKVRGPVSGSPDSMNASRLSQPGQ
LMSQPSTASNSLPEPAKKSEELVAEAHNLCTLLENAIQDTVREQDQSFTALDWSWLQTEEEEHSCLEQAS

FIGURE 1443

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GAGCCCAGCCGAGCGTCCGCCGCTGCCCGTGCGCCTCTGCGCTCCGCGCCATGGCCGGCCTCAACTCCCTGGAGG
CGGTGAAACGCAAGATCCAGGCCCTGCAGCAGCAGGCGGACGAGGCGGAAGACCGCGCGCAGGGCCTGCAGCGGG
AGCTGGACGGCGAGCGCGAGCGGCGCGAGAAAGCTGAAGGTGATGTGGCCGCCCTCAACCGACGCATCCAGCTCG
TTGAGGAGGAGTTGGACAGGGCTCAGGAACGACTGGCCACGGCCCTGCAGAAGCTGGAGGAGGCAGAAAAAGCTG
CAGATGAGAGTGAGAGAGGAATGAAGGTGATAGAAAACCGGGCCATGAAGGATGAGGAGAAGATGGAGATTCAGG
AGATGCAGCTCAAAGAGGCCAAGCACATTGCGGAAGAGGCTGACCGCAAATACGAGGAGGTAGCTCGTAAGCTGG
TCATCCTGGAGGGTGAGCTGGAGAGGGCAGAGGAGCGTGCGGAGGTGTCTGAACTAAAATGTGGTGACCTGGAAG
AAGAACTCAAGAATGTTACTAACAATCTGAAATCTCTGGAGGCTGCATCTGAAAAGTATTCTGAAAAGGAGGACA
AATATGAAGAAGAAATTAAACTTCTGTCTGACAAACTGAAAGAGGCTGAGACCCGTGCTGAATTTGCAGAGAGAA
CGGTTGCAAAACTGGAAAAGACAATTGATGACCTGGAAGAGAAACTTGCCCAGGCCAAAGAAGAGAACGTGGGCT
TACATCAGACACTGGATCAGACACTAAACGAACTTAACTGTATATAAGCAAAACAGAAGAGTCTTGTTCCAACAG
AAACTCTGGAGCTCCGTGGGTCTTTCTCTTCTCTTGTAAGAAGTTCCTTTTGTTATTGCCATCTTCGCTTTGCTG
GAAATGTCAAGCAAATTATGAATACATGACCAAATATTTTGTATCGGAGAAGCTTTGAGCACCAGTTAAATCTCA
TTCCTTCCCTTTTTTTTTCAAATGGCACCAGCTTTTTCAGCTCTCTTATTTTTTCCTTAAGTAGCATTTATTCCT
AAGGTAGGCAGGGTATTTCCTAGTAAGCATACTTTCTTAAGACGGAGGCCATTTGGTTCCTGGGAGAATAGGCAG
CCCCACACTTTGAAGAATACAGACCCCAGTATCTAGTCGTGGATATAATTAAAACGCTGAAGACCATAACCTTTT
GGGTCAACTGTTGGTCAAACTATAGGAGAGACCAGGGACCATCACATGGGTAGGGATTTTCCATCCAGAGCCAAT
AAAAGGACTGGTGGGGGCCGGGGGTGGCTATTGTGGGAAGTCATAACCCACAGATAGATCAACCTAAGAATCCTG
GCCCTTCTCCACTCTCCACCATGCAGGACAAACATCTTCTCAAGCAGTCAACGTAGAATGCTTGGGAAATAGTCA
TAATTACCCACATATAGTAATTAATAGATGGTAATTAATTGATCCTTGATGTGATGTTCTTTTGCATATTTCCTT
CATTCTAAAGTTGTTCCCTGGCCGGGAGCGTTTGCTTTCGCCTGTAATCCCAACACTTTGGGAGGCCAGGACAGA
TCACTTGAGGTCAGGAGTTCGAGACCAGCCCAGCCAACATGGCGAAACCATGTCTCTACTAAAAATACAAAAATT
ATGGTGACGCCTGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGGATCGCTTGAACCCAGGAAGTGGAG
ACTGCAGTGAGCCGATATCGCACCACAGCGCTCCAGCCTGGTCGACAGAGTGAGACTCCATCTCAAGAAAAAATA
AAAATAAAGTTGTTCTCTGAAGAGCAAATGTCTCATTCCAGTAATGACCCACTCAGCAGGAATATGGTGGAGTTC
AGTCCAATTCAGGTCAGCCATATCCAAAAGACCACAAGTCATTACTAAGTTGAGCAAAAGAGTTTTTATCTATTA
GCAGAAAGGGCCTCTCTGGCAGCAGAGATTAAAAACTGGCCCAACTTCATTTCCATACTTCAGGGAACAGCAAAT
TGAGGATTTACTTATCTAGGACTT
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FIGURE 1444

MAGLNSLEAVKRKIQALQQQADEAEDRAQGLQRELDGERERREKAEGDVAALNRRIQLVEEELDRAQERLATALQ
KLEEAEKAADESERGMKVIENRAMKDEEKMEIQEMQLKEAKHIAEEADRKYEEVARKLVILEGELERAEERAEVS
ELKCGDLEEELKNVTNNLKSLEAASEKYSEKEDKYEEEIKLLSDKLKEAETRAEFAERTVAKLEKTIDDLEEKLA
QAKEENVGLHQTLDQTLNELNCI

FIGURE 1445A

CGGCCGCGAGCGCAGTGGTGTGGAGCGCGCCGGGTCCCGGAGCCGGCTGTCTGAGGG**ATG**GACGAGACGAGCCCA
CTAGTGTCCCCGAGCGGGCCCAACCCCCGGACTACACCTTCCCGTCGGGCTCGGGCGCTCACTTTCCGCAGGTG
CCCGGGGGCGCGGTCCGAGTGGCGGCGGCGGCCGGCTCGGGCCCCTCTCCGCCAGGCTCGCCGGGCCACGACCGC
GAGCGGCAGCCACTGTTGGATCGGGCCCGGGGCGCGGCGGCCCAGGGCCAGACCCAAACCGTGGCGGCGCAGGCC
CAGGCTCTGGCCGCTCAGGCCGCGGCGGCAGCCCACGCCGCTCAGGCCCACCGCGAGCGGAACGAGTTCCCGGAG
GATCCTGAGTTCGAGGCGGTGGTGCGGCAGGCCGAGCTGGCCATCGAGCGCTGCATCTTTCCCGAGCGCATCTAC
CAGGGCTCCAGCGGAAGCTACTTCGTCAAGGACCCTCAGGGGAGGATCATTGCTGTCTTCAAACCCAAGAATGAA
GAGCCCTATGGGCATCTTAATCCTAAGTGGACCAAGTGGCTGCAGAAGCTGTGCTGTCCTTGCTGCTTTGGCCGT
GACTGCCTTGTCCTTAACCAGGGCTATCTCTCAGAAGCAGGGGCCAGCCTGGTGGACCAAAAACTGGAACTCAAC
ATTGTTCCCCGTACAAAGGTAGTATACCTGGCCAGTGAGACCTTCAACTATAGTGCCATTGACCGAGTGAAGTCC
AGGGGCAAGCGGCTTGCACTAGAGAAAGTGCCAAAAGTTGGACAGCGGTTTAACCGCATCGGGCTACCACCAAAG
GTTGGTTCATTCCAGCTCTTTGTTGAAGGCTACAAAGATGCAGACTATTGGCTGCGGCGTTTTGAAGCAGAACCT
CTTCCTGAGAACACTAACCGGCAACTACTGCTCCAGTTTGAGCGGTTGGTGGTGCTGGATTACATCATCCGCAAC
ACTGATCGAGGCAATGACAACTGGCTGATTAAATATGACTGTCCAATGGATAGTTCTAGCTCTCGGGACACAGAC
TGGGTGGTGGTGAAGGAGCCTGTTATCAAGGTGGCTGCCATAGACAATGGGCTGGCCTTCCCACTGAAGCATCCT
GACTCCTGGAGGGCATATCCTTTTTACTGGGCCTGGTTGCCCCAGGCGAAAGTCCCATTTTCTCAGGAGATCAAA
GATCTGATCCTTCCAAAGATATCGGACCCTAACTTCGTCAAGGACTTGGAAGAGGACCTATATGAACTCTTCAAG
AAAGATCCTGGTTTCGACAGGGGCCAGTTCCATAAGCAGATTGCTGTCATGCGGGGCCAGATCTTAAATCTGACC
CAGGCCTTGAAAGACAACAAGAGTCCCCTGCACCTCGTCCAGATGCCACCTGTGATTGTCGAGACGGCCCGTTCC
CACCAGCGGTCTTCTAGCGAGTCCTACACACAGAGCTTTCAGAGCCGGAAGCCCTTCTTTTCATGGTGG**TAG**CTC
CAGAGGCAGGCAGAGGAAATATTGTCAGAGACTGGTGGGAGGAAGCCTGGGGAGTGGGGTGCAGGAAAAGCCAGA
GAAGCCGGTGGAGAGCAGCACCTTTAAGAGCCCTCTCTCTCTGCTTGCCACCCTGCTCAGAGCTTTCCACCCACA
GGGAGAAGCACAATCAGGAACAGTGAGTGCTCCTCGCCCTTCTGATGTGGGGGAGGCTGGAGCTCCATGCACGTA
GTCCAGATGCCTGGGAAGGAACATCTCCCTTCCAGCATCTGCTGGTAGCAGGCTGGGACAGTCCCTTCCTTCCCT
GAAACCCTGCTCTATTGCAATTCCCTATTATATTCTGCATCAGAAAAACAAACAAAACAAAAACAACTTTAAATG
CTTGTAGCAGAACCCCGGGTCATCTCATGTCAGAAACCTTTAATCCAGGCCTAAATTTGCATAGACCTGACATTC
AGCTGCCTTGCAGTTGCTTCCTCCCATGAGCCAAGGTGGTGTCAGAGGGCAACTGGATGACTCGCAGTACCACAG
CACTGGGACAGACAGAAGCCACACCTTTCTTTTGGGTTTTTGCCAAGCCTCCTCCATCTCCCATCAGTGCTGTGG
GCTGGCTGCAAGCCTCGAAACAGTTCTCCTGGAAGGGAGGTTTTTGCTTTACCCCCGCCAGCACTTCCGCACACA
ATCATAGAGAACCTCTCTGCTCTCTGCTGGCCTACAGCTTGTCTGTTTCTCAAGCAGAGGCAGGAAGAGCTAGTC
TTAGCATTTATATTTAATAGGAAGTTGACTCCCAGCATGTAAAAGTGATCCACGCAGCCGGAGTGTATGCCGGG
AGCTAAGTGGTCTATGGGTGAACATATCCCACCTTGCTTCCTGAGTCCTTGGTCCCAATCTTCTCATTTGTTCCT
CTCGTTTTAAATTTTTTCCCCCCAACTCTTTTGATGTAAGAGTTCAGTTTGTCTTCGGGAGTGGGTCTCTGCAAG
GGCTCTGGGATGAGTCTTGGCTTCCAAGAGGACAGGCTATTAGGTTCTTGGACTTTTTTCTGTGCTACCGCTGCT
GCTTGGTGGAAGTAACAGGACGTGGATTCTGCCTCATAAGTGGCAGTTTCCCTTTTCTCTCTGACTTGTCCTAGG
CCGATTTCTCTATGGCTTCCCTGAGAAAGGTGAGGCCCAAAGGAGAGAGGCCTTCAAACTGTCCCAGGTCCTGCG
CAGCTCAGTGCGTATCTTCTTGCTTCCATGTGTCTTTTCCCTGCTGCCTCACTCCCCACCCCCACTTGCCAGGT
GTTTGAGCCATTTCTACACCAAAGCAAAGTACGGCCTCAGGAGGGAGTAAAAAGGGTGCCATCTGTGTCTGGAGG
GGCAGCTGTGTTCATGCCCTGTGCTACTGGACATTTCACAATTCTGGCACCTTGCGATTGGTCAGTCAACCTCAG
AAAGTAACTATCTTGAAGGTTTGAAAAACAACCAAAGAAAGGGAGTGAGGACTATGGCTGCATGTCCTCTGCTTG
CCCGGCTGCAGAGCAGAGATGTGCAGCCTCTGGTCAGCTGGTCCAGGCTGGTCCCGCCGGTCCCCTTCCAGTC
CAGCCACCAAGAGTCCACTTGTCCCGGGCTTCCACCTGGCTGACAGGAAGAATTTCTGAGAGCTGGATGTGCATG
CCCTGTGGACGAAGGTACAGCTCGCCTGCCTGCCCCAATCCCAGCCCCGACAATCACATGCAGCTGACTCGGACA
CTGGCCTTGGGAACAATGTTCGAGAGAACACTTGCCCCTTGACTGTAGGAGCCAGAAGGGGACCCAGGTGTGCAT
AGCTCTCTGTAGACATTTTTACCCAAACCTGTTGGTAAAGTGCCCATCTGGTGCTCAAGAGAGCCTGGGGGTCTA
ACAGGGAGCCCGGCTGCCTCACCTGGCCACAGCCTCCACACCAGATCTCCACATTGTCTTGATCCAGACCAGCTC
TGTGATCAGAAGGAAATTGGGTCCAGTGTAGGAGAGAGCTGGTCCTGGGCCTGGCAGGCAAGAGTGTGGGCATCC
TTTCCTGGCCTTTCTCCACTCTCCCTCAAGCCTGTGCTCAGGTTGCCTTGAATGTGGACTCTGGAAGAGCCAGGG

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FIGURE 1445B

GCCCAGAATGCCGGGGGAGGCTTCTGAGTGGCACTCATGGAACACCGTCCCTCTGCCAGCCATAGGCCCTGCCTC
CAGTGTCAGGGAATGGAGGCTGGGCTGCGAGAGTGTTGCTGCCCCCTGTGTCATTCTTCTAATCCAATGTAGAAA
TTGTACGTAATGTATTTAAATCAACGCAAATGTATGAATAACAAATACAGTTCTGACCTTTTTTGTCCAGTTTCT
TTGGGGGAAGGAAGACAAAGAAGGTAGGAACGGAATTTTGAGGGCAAAGAAACCTGTGTTTCCATGGAATTGCTG
AGACGTGGCTCCTGGGGCTATTTCTCCCTAATAAAGGATGATCCAGGTCCTCATTTCCAAAGTCCCAATGCTCTG
AAAACCAAAAGTATTTTCATAACCCATTTGAAACCAAACCTGACCTGAACTTACACTGATAGGAAGCTATGGGTA
ATTATGATGTGTTCCTTTTAGTGTGATTCTTTGTTGCAGAAATGTCAATATATTTTATGACATGGTTCCCTACTA
GGGATTATACAGTATTTGCTGACTACTTCCTAAGAGCCAAAAATAAAAAATCTGAATTCC

FIGURE 1446

MDETSPLVSPERAQPPDYTFPSGSGAHFPQVPGGAVRVAAAAGSGPSPPGSPGHDRERQPLLDRARGAAAQGQTQ
TVAAQAQALAAQAAAAAHAAQAHRERNEFPEDPEFEAVVRQAELAIERCIFPERIYQGSSGSYFVKDPQGRIIAV
FKPKNEEPYGHLNPKWTKWLQKLCCPCCFGRDCLVLNQGYLSEAGASLVDQKLELNIVPRTKVVYLASETFNYSA
IDRVKSRGKRLALEKVPKVGQRFNRIGLPPKVGSFQLFVEGYKDADYWLRRFEAEPLPENTNRQLLLQFERLVVL
DYIIRNTDRGNDNWLIKYDCPMDSSSSRDTDWVVVKEPVIKVAAIDNGLAFPLKHPDSWRAYPFYWAWLPQAKVP
FSQEIKDLILPKISDPNFVKDLEEDLYELFKKDPGFDRGQFHKQIAVMRGQILNLTQALKDNKSPLHLVQMPPVI
VETARSHQRSSSESYTQSFQSRKPFFSWW

FIGURE 1447A

CGGCCGCGAGCGCAGTGGTGTGGAGCGCGCCGGGTCCCGGAGCCGGCTGTCTGAGGG**ATG**GACGAGACGAGCCCA
CTAGTGTCCCCCGAGCGGGCCCAACCCCCGGACTACACCTTCCCGTCGGGCTCGGGCGCTCACTTTCCGCAGGTG
CCCGGGGGCGCGGTCCGAGTGGCGGCGGCGGCCGGCTCGGGCCCCTCTCCGCCAGGCTCGCCGGGCCACGACCGC
GAGCGGCAGCCACTGTTGGATCGGGCCCGGGGCGCGGCGGCCCAGGGCCAGACCCAAACCGTGGCGGCGCAGGCC
CAGGCTCTGGCCGCTCAGGCCGCGGCGGCAGCCCACGCCGCTCAGGCCCACCGCGAGCGGAACGAGTTCCCGGAG
GATCCTGAGTTCGAGGCGGTGGTGCGGCAGGCCGAGCTGGCCATCGAGCGCTGCATCTTTCCCGAGCGCATCTAC
CAGGGCTCCAGCGGAAGCTACTTCGTCAAGGACCTCAGGGGAGGATCATTGCTGTCTTCAAACCCAAGAATGAA
GAGCCCTATGGGCATCTTAATCCTAAGTGGACCAAGTGGCTGCAGAAGCTGTGCTGTCCTTGCTGCTTTGGCCGT
GACTGCCTTGTCCTTAACCAGGGCTATCTCTCAGAAGCAGGGGCCAGCCTGGTGGACCAAAAACTGGAACTCAAC
ATTGTTCCCCGTACAAAGGTAGTATACCTGGCCAGTGAGACCTTCAACTATAGTGCCATTGACCGAGTGAAGTCC
AGGGGCAAGCGGCTTGCACTAGAGAAAGTGCCAAAAGTTGGACAGCGGTTTAACCGCATCGGGCTACCACCAAAG
GTTGGTTCATTCCAGCTCTTTGTTGAAGGCTACAAAGATGCAGACTATTGGCTGCGGCGTTTTGAAGCAGAACCT
CTTCCTGAGAACACTAACCGGCAACTACTGCTCCAGTTTGAGCGGTTGGTGGTGCTGGATTACATCATCCGCAAC
ACTGATCGAGGCAATGACAACTGGCTGATTAAATATGACTGTCCAATGGATAGTTCTAGCTCTCGGGACACAGAC
TGGGTGGTGGTGAAGGAGCCTGTTATCAAGGTGGCTGCCATAGACAATGGGCTGGCCTTCCCACTGAAGCATCCT
GACTCCTGGAGGGCATATCCTTTTTACTGGGCCTGGTTGCCCCAGGCGAAAGTCCCATTTTCTCAGGAGATCAAA
GATCTGATCCTTCCAAAGATATCGGACCCTAACTTCGTCAAGGACTTGGAAGAGGACCTATATGAACTCTTCAAG
AAAGATCCTGGTTTCGACAGGGGCCAGTTCCATAAGCAGATTGCTGTCATGCGGGGCCAGATCTTAAATCTGACC
CAGGCCTTGAAAGACAACAAGAGTCCCCTGCACCTCGTCCAGATGCCACCTGTGATTGTCGAGACGGCCCGTTCC
CACCAGCGGTCTTCTAGCGAGTCCTACACACAGAGCTTTCAGAGCCGGAAGCCCTTCTTTTCATGGTGG**TAG**CTC
CAGAGGCAGGCAGAGGGAAATATTGTCAGAGACTGGTGGGAGGAAGCCTGGGGAGTGGGGTGCAGGAAAAGCCAGA
GAAGCCGGTGGAGAGCAGCACCTTTAAGAGCCCTCTCTCTCTGCTTGCCACCCTGCTCAGAGCTTTCCACCCACA
GGGAGAAGCACAATCAGGAACAGTGAGTGCTCCTCGCCCTTCTGATGTGGGGGAGGCTGGAGCTCCATGCACGTA
GTCCAGATGCCTGGGAAGGAACATCTCCCTTCCAGCATCTGCTGGTAGCAGGCTGGGACAGTCCCTTCCTTCCCT
GAAACCCTGCTCTATTGCAATTCCCTATTATATTCTGCATCAGAAAAACAAACAAAACAAAAACAACTTTAAATG
CTTGTAGCAGAACCCCGGGTCATCTCATGTCAGAAACCTTTAATCCAGGCCTAAATTTGCATAGACCTGACATTC
AGCTGCCTTGCAGTTGCTTCCTCCCATGAGCCAAGGTGGTGTCAGAGGGCAACTGGATGACTCGCAGTACCACAG
CACTGGGACAGACAGAAGCCACACCTTTCTTTTGGGTTTTTGCCAAGCCTCCTCCATCTCCCATCAGTGCTGTGG
GCTGGCTGCAAGCCTCGAAACAGTTCTCCTGGAAGGGAGGTTTTTGCTTTACCCCCGCCAGCACTTCCGCACACA
ATCATAGAGAACCTCTCTGCTCTCTGCTGGCCTACAGCTTGTCTGTTTCTCAAGCAGAGGCAGGAAGAGCTAGTC
TTAGCATTTATATTTTAATAGGAAGTTGACTCCCAGCATGTAAAAGTGATCCACGCAGCCGGAGTGTATGCCGGG
AGCTAAGTGGTCTATGGGTGAACATATCCCACCTTGCTTCCTGAGTCCTTGGTCCCAATCTTCTCATTTGTTCCT
CTCGTTTTAAATTTTTTCCCCCCAACTCTTTTGATGTAAGAGTTCAGTTTGTCTTCGGGAGTGGGTCTCTGCAAG
GGCTCTGGGATGAGTCTTGGCTTCCAAGAGGACAGGCTATTAGGTTCTTGGACTTTTTTCTGTGCTACCGCTGCT
GCTTGGTGGAAGTAACAGGACGTGGATTCTGCCTCATAAGTGGCAGTTTCCCTTTTCTCTCTGACTTGTCCTAGG
CCGATTTCTCTATGGCTTCCCTGAGAAAGGTGAGGCCCAAAGGAGAGAGGCCTTCAAACTGTCCCAGGTCCTGCG
CAGCTCAGTGCGTATCTTCTTGCTTCCATGTGTCTTTTCCCCTGCTGCCTCACTCCCCACCCCCACTTGCCAGGT
GTTTGAGCCATTTCTACACCAAAGCAAAGTACGGCCTCAGGAGGGAGTAAAAAGGGTGCCATCTGTGTCTGGAGG
GGCAGCTGTGTTCATGCCCTGTGCTACTGGACATTTCACAATTCTGGCACCTTGCGATTGGTCAGTCAACCTCAG
AAAGTAACTATCTTGAAGGTTTGAAAAACAACCAAAGAAAGGGAGTGAGGACTATGGCTGCATGTCCTCTGCTTG
CCCGGCTGCAGAGCAGAGATGTGCAGCCCTCTGGTCAGCTGGTCCAGGCTGGTCCCCGCCGGTCCCCTTCCAGTC
CAGCCACCAAGAGTCCACTTGTCCCGGGCTTCCACCTGGCTGACAGGAAGAATTTCTGAGAGCTGGATGTGCATG
CCCTGTGGACGAAGGTACAGCTCGCCTGCCTGCCCCAATCCCAGCCCCGACAATCACATGCAGCTGACTCGGACA
CTGGCCTTGGGAACAATGTTCGAGAGAACACTTGCCCCTTGACTGTAGGAGCCAGAAGGGGACCCAGGTGTGCAT
AGCTCTCTGTAGACATTTTTACCCAAACCTGTTGGTAAAGTGCCCATCTGGTGCTCAAGAGAGCCTGGGGGTCTA
ACAGGGAGCCCGGCTGCCTCACCTGGCCACAGCCTCCACACCAGATCTCCACATTGTCTTGATCCAGACCAGCTC
TGTGATCAGAAGGAAATTGGGTCCAGTGTAGGAGAGAGCTGGTCCTGGGCCTGGCAGGCAAGAGTGTGGGCATCC
TTTCCTGGCCTTTCTCCACTCTCCCTCAAGCCTGTGCTCAGGTTGCCTTGAATGTGGACTCTGGAAGAGCCAGGG

FIGURE 1447B

GCCCAGAATGCCGGGGGAGGCTTCTGAGTGGCACTCATGGAACACCGTCCCTCTGCCAGCCATAGGCCCTGCCTC
CAGTGTCAGGGAATGGAGGCTGGGCTGCGAGAGTGTTGCTGCCCCCTGTGTCATTCTTCTAATCCAATGTAGAAA
TTGTACGTAATGTATTTAAATCAACGCAAATGTATGAATAACAAATACAGTTCTGACCTTTTTTGTCCAGTTTCT
TTGGGGGAAGGAAGACAAAGAAGGTAGGAACGGAATTTTGAGGGCAAAGAAACCTGTGTTTCCATGGAATTGCTG
AGACGTGGCTCCTGGGGCTATTTCTCCCTAATAAAGGATGATCCAGGTCCTCATTTCCAAAGTCCCAATGCTCTG
AAAACCAAAAGTATTTTCATAACCCATTTGAAACCAAACCTGACCTGAACTTACACTGATAGGAAGCTATGGGTA
ATTATGATGTGTTCCTTTTAGTGTGATTCTTTGTTGCAGAAATGTCAATATATTTTATGACATGGTTCCCTACTA
GGGATTATACAGTATTTGCTGACTACTTCCTAAGAGCCAAAAATAAAAAATCTGAATTCC

FIGURE 1448

MDETSPLVSPERAQPPDYTFPSGSGAHFPQVPGGAVRVAAAAGSGPSPPGSPGHDRERQPLLDRARGAAAQGQTQ
TVAAQAQALAAQAAAAAHAAQAHRERNEFPEDPEFEAVVRQAELAIERCIFPERIYQGSSGSYFVKDPQGRIIAV
FKPKNEEPYGHLNPKWTKWLQKLCCPCCFGRDCLVLNQGYLSEAGASLVDQKLELNIVPRTKVVYLASETFNYSA
IDRVKSRGKRLALEKVPKVGQRFNRIGLPPKVGSFQLFVEGYKDADYWLRRFEAEPLPENTNRQLLLQFERLVVL
DYIIRNTDRGNDNWLIKYDCPMDSSSSRDTDWVVVKEPVIKVAAIDNGLAFPLKHPDSWRAYPFYWAWLPQAKVP
FSQEIKDLILPKISDPNFVKDLEEDLYELFKKDPGFDRGQFHKQIAVMRGQILNLTQALKDNKSPLHLVQMPPVI
VETARSHQRSSSESYTQSFQSRKPFFSWW

FIGURE 1449A

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ATCTTTTTTTCATCTTCTAGCTGTAGCTCGGGCTGCTTGTCGGCTTGGCTCCCCCTCCCCCCTTTGCTCTCTGCCT
CGTCTTTCCCCAGGACTTCGCTATTTTGCTTTTTTAAAAAAAGGCAAGAAAGAACTAAACTCCCCCCTCCCTCTC
CTCCAGTCGGGCTGCACCTCTGCCTTGCACTTTGCACAGAGGTAGAGAGCGCGCGAGGGAGAGAGAGGAAAGAAA
AAAAATAATAAAGAGAGCCAAGCAGAAGAGGAGGCGAGAAGCATGAAGTGTTAACTCCCCCGTGCCAAGGCCCGC
GCCGCCCGGACAGACGCCCGCCGCGCCTTCCAGCCCCGAGCGGACGCCGCGCGCCGCCCTGCCTGCAGCCCGGGC
CGGCGACGGCGAGCCCTTCCTTATGCAAAGCGCGCCAGCAGCGCGAAGGCGGGACGCCGCGCACCGGGCCGGGCT
CCTCCAGCTTCGCCGCCGCAGCCACCACCGCCGCCACCGCAGCTCGCGGAGGATCTTCCCGAGCCTGAAGCCGCC
GGCTCGGCGCGCAAGGAGGCGAGCGCAAGGAGGGGCCGGGGCGAGCGAGGGAGCACATTGGCGTGAGCAGGGGGG
AGGGAGGGCGGGCGCGGGGGGCGCGGGCAGGGCGGGGGGTGTGTGTGTGAGCGCGCTTGGAGGTTTCGGGCCAG
CCACCGCCGCGCAAGCTAGAAGCGCCCCAGCCCGGCAAGCTGGCTCACCCGCTGGCCACCCAGCACAGCCCGCTG
GCCCCTCTCCTGCAGCCCATCTGGCGGAGCGGCGGCGGCGGCGGCGGCGGCAGGAGA**ATG**GCATCAGAACTGGCA
ATGAGCAACTCCGACCTGCCCACCAGTCCCCTGGCCATGGAATATGTTAATGACTTCGATCTGATGAAGTTTGAA
GTGAAAAAGGAACCGGTGGAGACCGACCGCATCATCAGCCAGTGCGGCCGTCTCATCGCCGGGGGCTCGCTGTCC
TCCACCCCCATGAGCACGCCGTGCAGCTCGGTGCCCCCTTCCCCCAGCTTCTCGGCGCCCAGCCCGGGCTCGGGC
AGCGAGCAGAAGGCGCACCTGGAAGACTACTACTGGATGACCGGCTACCCGCAGCAGCTGAACCCCGAGGCGCTG
GGCTTCAGCCCCGAGGACGCGGTCGAGGCGCTCATCAGCAACAGCCACCAGCTCCAGGGCGGCTTCGATGGCTAC
GCGCGCGGGGCGCAGCAGCTGGCCGCGGCGGCCGGGGCCGGTGCCGGCGCCTCCTTGGGCGGCAGCGGCGAGGAG
ATGGGCCCCGCGGCCGCCGTGGTGTCCGCCGTGATCGCCGCGGCCGCCGCGCAGAGCGGCGCGGGCCCGCACTAC
CACCACCACCACCACGCCGCCGGCCACCACCACCACCCGACGGCCGGCGCGCCCGGCGCCGCGGGCAGCGCG
GCCGCCTCGGCCGGTGGCGCTGGGGGCGCGGGCGGCGGTGGCCCGGCCAGCGCTGGGGGCGGCGGCGGCGGCGGC
GGCGGCGGAGGCGGCGGGGGCGCGGCGGGGGCGGGGGGCGCCCTGCACCCGCACCACGCCGCCGGCGGCCTGCAC
TTCGACGACCGCTTCTCCGACGAGCAGCTGGTGACCATGTCTGTGCGCGAGCTGAACCGGCAGCTGCGCGGGGTC
AGCAAGGAGGAGGTGATCCGGCTGAAGCAGAAGAGGCGGACCCTGAAAAACCGCGGCTATGCCCAGTCCTGCCGC
TTCAAGAGGGTGCAGCAGAGACACGTCCTGGAGTCGGAGAAGAACCAGCTGCTGCAGCAAGTCGACCACCTCAAG
CAGGAGATCTCCAGGCTGGTGCGCGAGAGGGACGCGTACAAGGAGAAATACGAGAAGTTGGTGAGCAGCGGCTTC
CGAGAAACGGCTCGAGCAGCGACAACCCGTCCTCTCCCGAGTTTTTCATG**TGA**GTCTGACACGCGATTCCAGCT
AGCCACCCTGATAAGTGCTCCGCGGGGGTCCGGCTCGGGTGTGGGCTTGCTAGTTCTAGAGCCATGCTCGCCACC
ACCTCACCACCCCCACCCCCACCGAGTTTGGCCCCCTTGGCCCCCTACACACACAAACCCGCACGCACACACC
ACACACACACACACACACACACACACCCCACACCCTGCTCGAGTTTGTGGTGGTGGTGGCTGTTTTAAACT
GGGGAGGGAATGGGTGTCTGGCTCATGGATTGCCAATCTGAAATTCTCCATAACTTGCTAGCTTGTTTTTTTTTT
TTTTTTTTACACCCCCCCGCCCCACCCCCCGGACTTGCACAATGTTCAATGATCTCAGCAGAGTTCTTCATGTGA
AACGTTGATCACCTTTGAAGCCTGCATCATTCACATATTTTTCTTCTTCTTCCCCTTCAGTTCATGAACTGGTG
TTCATTTTCTGTGTGTGTGTGTGTTTTATTTTGTTTGGATTTTTTTTTTTAATTTTACTTTTAGAGCTTGCTGTG
CTTGCCCACCTCTTTTCCAACCTCCACCCTCACTCCTTCTCAACCCATCTCTTCCGAGATGAAAGAAAAAAAAAA
GCAAAGTTTTTTTTTCTTCTCCTGAGTTCTTCAGTGAGATTGAGCTTGCAAAGGAAAAAAAAATGTGAAATGTTA
TAGACTTGCAGCGTGCCGAGTTCCATCGGGTTTTTTTTTTAGCATTGTTATGCTAAAATAGAGAAAAAAATCCTC
ATGAACCTTCCACAATCAAGCCTGCATCAACCTTCTGGGTGTGACTTGTGAGTTTTGGCCTTGTGATGCCAAATC
TGAGAGTTTAGTCTGCCATTAAAAAAACTCATTCTCATCTCATGCATTATTATGCTTGCTACTTTGTCTTAGCAA
CAATGAACTATAACTGTTTCAAAGACTTTATGGAAAAGAGACATTATATTAATAAAAAAAAAAGCCTGCATGCTG
GACATATATGGTATAATTATTTTTTCCTTTTTTTTTCCTTTTGGCTTGGAAATGGACGTTCGAAGACTTATAGCA
TGGCATTCATACTTTTGTTTATTGCCTCATGACTTTTTGAGTTTAGAACAAAACAGTGCAACCGTAGAGCCTT
CTTCCCATGAAATTTTGCATCTGCTCCAAAACTGCTTTGAGTTACTCAGAACTTCAACCTCCCAATGCACTGAAG
GCATTCCTTGTCAAAGATACCAGAATGGGTTACACATTTAACCTGGCAAACATTGAAGAACTCTTAATGTTTTCT
TTTTAATAAGAATGACGCCCACTTTGGGGACTAAAATTGTGCTATTGCCGAGAAGCAGTCTAAAATTTATTTTTX
AAAAAGAGAAACTGCCCCATTATTTTTGGTTTGTTTTATTTTTATTTTATATTTTTTGGCTTTTTGGTCATTGTCA
AATGTGGAATGCTCTGGGTTTCTAGTATATAATTTAATTCTAGTGTTTATAATCTGTTAGCCCAGTTAAAATGTA
TGCTACAGATAAAGGAATGTTATAGATAAATTTGAAAGAGTTAGGTCTGTTTAGCTGTAGATTTTTTAAACGATT
GATGCACTAAATTGTTTACTATTGTGATGTTAAGGGGGGGTAGAGTTTGCAAGGGGACTGTTTAAAAAAAGTAGCT
```

FIGURE 1449B

```
TATACAGCATGTGCTTGCAACTTAAATATAAGTTGGGTATGTGTAGTCTTTGCTATACCACTGACTGTATTGAAA
ACCAAAGTATTAAGAGGGGAAACGCCCCTGTTTATATCTGTAGGGGTATTTTACATTCAAAAATGTATGTTTTTT
TTTCTTTTCAAAATTAAAGTATTTGGGACTGAATTGCACTAAGATATAACCTGCAAGCATATAATACAAAAAAAA
ATTGCAAAACTGTTTAGAACGCTAATAAAATTTATGCAGTTATAAAAATGGCATTACTGCACAGTTTTAAGATGA
TGCAGATTTTTTTACAGTTGTATTGTGGTGCAGAACTGGATTTTCTGTAACTTAAAAAAAATCCACAGTTTTAAA
GGCAATAATCAGTAAATGTTATTTTCAGGGACTACATCCTGTCTTTAAAAAGAAATGAAAGTAAATCTTACCAC
AATAAATATAAAAAAATCTTGTCAGTTACTTTTCTTTTACATATTTTGCTGTGCAAAATTGTTTTATATCTTGAG
TTACTAACTAACCACGCGTGTTGTTCCTATGTGCTTTTCTTTCATTTTCAATTCTGGTTATATCAAGAAAAGATA
ATCTACAATAATAAACGGCATTTTTTTTTGATTCTGTAAAAAAAAA
```

FIGURE 1450

MASELAMSNSDLPTSPLAMEYVNDFDLMKFEVKKEPVETDRIISQCGRLIAGGSLSSTPMSTPCSSVPPSPSFSA
PSPGSGSEQKAHLEDYYWMTGYPQQLNPEALGFSPEDAVEALISNSHQLQGGFDGYARGAQQLAAAAGAGAGASL
GGSGEEMGPAAAVVSAVIAAAAAQSGAGPHYHHHHHHAAGHHHHPTAGAPGAAGSAAASAGGAGGAGGGGPASAG
GGGGGGGGGGGGGAAGAGGALHPHHAAGGLHFDDRFSDEQLVTMSVRELNRQLRGVSKEEVIRLKQKRRTLKNRG
YAQSCRFKRVQQRHVLESEKNQLLQQVDHLKQEISRLVRERDAYKEKYEKLVSSGFRENGSSSDNPSSPEFFM

FIGURE 1451

GGCACGAGGGGAAGGTGGCCGAGCGCCCGCGCTGCCCACTCGCTCGCTCGCGCACTCAGACGCGCGCCACAACAG
CGCGCCCCAAGCTGCGCAGCTCTGCAAAAGTTTCTGCTCGGGATCTGGCTCTCTTCCCCTTGGACTTTAGAACGA
TTTAGGGTTGACAGAGGAAAGCAGAGGCGCGCAGGAGGAGCAGAAAACACCACCTTCTGCAGTTGGAGGCAGGCA
GCCCCGGCTGCACTCTAGCCGCCGCGCCCGGAGCCGGGGCCGACCCGCCACTATCCGCAGCAGCCTCGGCCAGGA
GGCGACCCGGGCGCCTGGGTGTGTGGCTGCTGTTGCGGGACGTCTTCGCGGGGCGGGAGGCTCGCGCCGCAGCCA
GCGCC**ATG**CAAAACTACAAGTACGACAAAGCGATCGTCCCGGAGAGCAAGAACGGCGGCAGCCCGGCGCTCAACA
ACAACCCGAGGAGGAGCGGCAGCAAGCGGGTGCTGCTCATCTGCCTCGACCTCTTCTGCCTCTTCATGGCGGGCC
TCCCCTTCCTCATCATCGAGACAAGCACCATCAAGCCTTACCACCGAGGGTTTTACTGCAATGATGAGAGCATCA
AGTACCCACTGAAAACTGGTGAGACAATAAATGACGCTGTGCTCTGTGCCGTGGGGATCGTCATTGCCATCCTCG
CGATCATCACGGGGGAATTCTACCGGATCTATTACCTGAAGAAGTCGCGGTCGACGATTCAGAACCCCTACGTGG
CAGCACTCTATAAGCAAGTGGGCTGCTTCCTCTTTGGCTGTGCCATCAGCCAGTCTTTCACAGACATTGCCAAAG
TGTCCATAGGGCGCCTGCGTCCTCACTTCTTGAGTGTCTGCAACCCTGATTTCAGCCAGATCAACTGCTCTGAAG
GCTACATTCAGAACTACAGATGCAGAGGTGATGACAGCAAAGTCCAGGAAGCCAGGAAGTCCTTCTTCTCTGGCC
ATGCCTCCTTCTCCATGTACACTATGCTGTATTTGGTGCTATACCTGCAGGCCCGCTTCACTTGGCGAGGAGCCC
GCCTGCTCCGGCCCCTCCTGCAGTTCACCTTGATCATGATGGCCTTCTACACGGGACTGTCTCGCGTATCAGACC
ACAAGCACCATCCCAGTGATGTTCTGGCAGGATTTGCTCAAGGAGCCCTGGTGGCCTGCTGCATAGTTTTCTTCG
TGTCTGACCTCTTCAAGACTAAGATGACGCTCTCCCTGCCTGCCCCTGCTATCCGGAAGGAAATCCTTTCACCTG
TGGACATTATTGACAGGAACAATCACCACAACATGATG**TAG**GTGCCACCCACCTCCTGAGCTGTTTTTGTAAAAT
GACTGCTGACAGCAAGTTCTTGCTGCTCTCCAATCTCATCAGACAGTAGAATGTAGGGAAAAACTTTTGCCCGAC
TGATTTTTAAAAAAAAAAAAAAAAAAA

FIGURE 1452

MQNYKYDKAIVPESKNGGSPALNNNPRRSGSKRVLLICLDLFCLFMAGLPFLIIETSTIKPYHRGFYCNDESIKY
PLKTGETINDAVLCAVGIVIAILAIITGEFYRIYYLKKSRSTIQNPYVAALYKQVGCFLFGCAISQSFTDIAKVS
IGRLRPHFLSVCNPDFSQINCSEGYIQNYRCRGDDSKVQEARKSFFSGHASFSMYTMLYLVLYLQARFTWRGARL
LRPLLQFTLIMMAFYTGLSRVSDHKHHPSDVLAGFAQGALVACCIVFFVSDLFKTKMTLSLPAPAIRKEILSPVD
IIDRNNHHNMM

FIGURE 1453

ACAACCGTAACAGCCACCAGACAAGCTTCAGTGGCCGGCCCTTCACATCCAGACTTGCCTGAGAGGACCCACCTC
TGAGTGTCCAGTGGTCAGTTGCCCCAGG**ATG**GGGACCACAGCCAGAGCAGCCTTGGTCTTGACCTATTTGGCTGT
TGCTTCTGCTGCCTCTGAGGGAGGCTTCACGGCTACAGGACAGAGGCAGCTGAGGCCAGAGCACTTTCAAGAAGT
TGGCTACGCAGCTCCCCCCTCCCCACCCCTATCCCGAAGCCTCCCCATGGATCACCCTGACTCCTCTCAGCATGG
CCCTCCCTTTGAGGGACAGAGTCAAGTGCAGCCCCCTCCCTCTCAGGAGGCCACCCCTCTCCAACAGGAAAAGCT
GCTACCTGCCCAACTCCCTGCTGAAAAGGAAGTGGGTCCCCCTCTCCCTCAGGAAGCTGTCCCCCTCCAAAAAGA
GCTGCCCTCTCTCCAGCACCCCAATGAACAGAAGGAAGGAACGCCAGCTCCATTTGGGGACCAGAGCCATCCAGA
ACCTGAGTCCTGGAATGCAGCCCAGCACTGCCAACAGGACCGGTCCCAAGGGGGCTGGGGCCACCGGCTGGATGG
CTTCCCCCCTGGGCGGCCTTCTCCAGACAATCTGAACCAAATCTGCCTTCCTAACCGTCAGCATGTGGTATATGG
TCCCTGGAACCTACCACAGTCCAGCTACTCCCACCTCACTCGCCAGGGTGAGACCCTCAATTTCCTGGAGATTGG
ATATTCCCGCTGCTGCCACTGCCGCAGCCACACAAACCGCCTAGAGTGTGCCAAACTTGTGTGGGAGGAAGCAAT
GAGCCGATTCTGTGAGGCCGAGTTCTCGGTCAAGACCCGACCCCACTGGTGCTGCACGCGGCAGGGGGAGGCTCG
GTTCTCCTGCTTCCAGGAGGAAGCTCCCCAGCCACACTACCAGCTCCGGGCCTGCCCCAGCCATCAGCCTGATAT
TTCCTCGGGTCTTGAGCTGCCTTTCCCTCCTGGGGTGCCCACATTGGACAATATCAAGAACATCTGCCACCTGAG
GCGCTTCCGCTCTGTGCCACGCAACCTGCCAGCTACTGACCCCCTACAAAGGGAGCTGCTGGCACTGATCCAGCT
GGAGAGGGAGTTCCAGCGCTGCTGCCGCCAGGGGAACAATCACACCTGTACATGGAAGGCCTGGGAGGATACCCT
TGACAAATACTGTGACCGGGAGTATGCTGTGAAGACCCACCACCACTTGTGTTGCCGCCACCCTCCCAGCCCTAC
TCGGGATGAGTGCTTTGCCCGTCGGGCTCCTTACCCCAACTATGACCGGGACATCTTGACCATTGACATCAGTCG
AGTCACCCCCAACCTCATGGGCCACCTCTGTGGAAACCAAAGAGTTCTCACCAAGCATAAACATATTCCTGGGCT
GATCCACAACATGACTGCCCGCTGCTGTGACCTGCCATTTCCAGAACAGGCCTGCTGTGCAGAGGAGGAGAAATT
AACCTTCATCAATGATCTGTGTGGTCCCCGACGTAACATCTGGCGAGACCCTGCCCTCTGCTGTTACCTGAGTCC
TGGGGATGAACAGGTCAACTGCTTCAACATCAATTATCTGAGGAACGTGGCTCTAGTGTCTGGAGACACTGAGAA
CGCCAAGGGCCAGGGGGAGCAGGGCTCAACTGGAGGAACAAATATCAGCTCCACCTCTGAGCCCAAGGAAGAATG
AGTCACCCCAGAGCCCTAGAGGGTCAGATGGGGGGAACCCCACCCTGCCCCACCCATCTGAACACTCATTACACT
AAACACCTCTTGGATTTGGAAAAAAAAAAAAAAAAAAA

FIGURE 1454

MGTTARAALVLTYLAVASAASEGGFTATGQRQLRPEHFQEVGYAAPPSPPLSRSLPMDHPDSSQHGPPFEGQSQV
QPPPSQEATPLQQEKLLPAQLPAEKEVGPPLPQEAVPLQKELPSLQHPNEQKEGTPAPFGDQSHPEPESWNAAQH
CQQDRSQGGWGHRLDGFPPGRPSPDNLNQICLPNRQHVVYGPWNLPQSSYSHLTRQGETLNFLEIGYSRCCHCRS
HTNRLECAKLVWEDTLDKYCDREYAVKTHHHLCCRHPPSPTRDECFARRAPYPNYDRDILTIDISRVTPNLMGHL
CGNQRVLTKHKHIPGLIHNMTARCCDLPFPEQACCAEEEKLTFINDLCGPRRNIWRDPALCCYLSPGDEQVNCFN
INYLRNVALVSGDTENAKGQGEQGSTGGTNISSTSEPKEE

FIGURE 1455

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AGTGGAGTGGGACAGGTATATAAAGGAAGTACAGGGCCTGGGGAAGAGGCCCTGTCTAGGTAGCTGGCACCAGGA
GCCGTGGGCAAGGGAAGAGGCCACACCCTGCCCTGCTCTGCTGCAGCCAGAATGGGTGTGAAGGCGTCTCAAACA
GGCTTTGTGGTCCTGGTGCTGCTCCAGTGCTGCTCTGCATACAAACTGGTCTGCTACTACACCAGCTGGTCCCAG
TACCGGGAAGGCGATGGGAGCTGCTTCCCAGATGCCCTTGACCGCTTCCTCTGTACCCACATCATCTACAGCTTT
GCCAATATAAGCAACGATCACATCGACACCTGGGAGTGGAATGATGTGACGCTCTACGGCATGCTCAACACACTC
AAGAACAGGAACCCCAACCTGAAGACTCTCTTGTCTGTCGGAGGATGGAACTTTGGGTCTCAAAGATTTTCCAAG
ATAGCCTCCAACACCCAGAGTCGCCGGACTTTCATCAAGTCAGTACCGCCATTCCTGCGCACCCATGGCTTTGAT
GGGCTGGACCTTGCCTGGCTCTACCCTGGACGGAGAGACAAACAGCATTTTACCACCCTAATCAAGGAAATGAAG
GCCGAATTTATAAAGGAAGCCCAGCCAGGGAAAAAGCAGCTCCTGCTCAGCGCAGCACTGTCTGCGGGGAAGGTC
ACCATTGACAGCAGCTATGACATTGCCAAGATATCCCAACACCTGGATTTCATTAGCATCATGACCTACGATTTT
CATGGAGCCTGGCGTGGGACCACAGGCCATCACAGTCCCCTGTTCCGAGGTCAGGAGGATGCAAGTCCTGACAGA
TTCAGCAACACTGACTATGCTGTGGGGTACATGTTGAGGCTGGGGGCTCCTGCCAGTAAGCTGGTGATGGGCATC
CCCACCTTCGGGAGGAGCTTCACTCTGGCTTCTTCTGAGACTGGTGTTGGAGCCCCAATCTCAGGACCGGGAATT
CCAGGCCGGTTCACCAAGGAGGCAGGGACCCTTGCCTACTATGAGATCTGTGACTTCCTCCGCGGAGCCACAGTC
CATAGAACCCTCGGCCAGCAGGTCCCCTATGCCACCAAGGGCAACCAGTGGGTAGGATACGACGACCAGGAAAGC
GTCAAAAGCAAGGTGCAGTACCTGAAGGATAGGCAGCTGGCAGGCGCCATGGTATGGGCCCTGGACCTGGATGAC
TTCCAGGGCTCCTTCTGCGGCCAGGATCTGCGCTTCCCTCTCACCAATGCCATCAAGGATGCACTCGCTGCAACG
TAGCCCTCTGTTCTGCACACAGCACGGGGGCCAAGGATGCCCCGTCCCCTCTGGCTCCAGCTGGCCGGGAGCCT
GATCACCTGCCCTGCTGAGTCCCAGGCTGAGCCTCAGTCTCCCTCCCTTGGGGCCTATGCAGAGGTCCACAACAC
ACAGATTTGAGCTCAGCCCTGGTGGGCAGAGAGGTAGGGATGGGGCTGTGGGGATAGTGAGGCATCGCAATGTAA
GACTCGGGATTAGTACACACTTGTTGATGATTAATGGAAATGTTTACAGATCCCCAAGCCTGGCAAGGGAATTTC
TTCAACTCCCTGCCCCCTAGCCCTCCTTATCAAAGGACACCATTTTGGCAAGCTCTATCACCAAGGAGCCAAACA
TCCTACAAGACACAGTGACCATACTAATTATACCCCCTGCAAAGCCAGCTTGAAACCTTCACTTAGGAACGTAAT
CGTGTCCCCTATCCTACTTCCCCTTCCTAATTCCACAGCTGCTCAATAAAGTACAAGAGTTTAACAGTGTGTTGG
CGCTTTGCTTTGGTCTATCTTTGAGCGCCCACTAGACCCACTGGACTCACCTCCCCCATCTCTTCTGGGTTCCTT
CCTCTGAGCCTTGGGACCCCTGAGCTTGCAGAGATGAAGGCCGCCATGTT
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FIGURE 1456

MGVKASQTGFVVLVLLQCCSAYKLVCYYTSWSQYREGDGSCFPDALDRFLCTHIIYSFANISNDHIDTWEWNDVT
LYGMLNTLKNRNPNLKTLLSVGGWNFGSQRFSKIASNTQSRRTFIKSVPPFLRTHGFDGLDLAWLYPGRRDKQHF
TTLIKEMKAEFIKEAQPGKKQLLLSAALSAGKVTIDSSYDIAKISQHLDFISIMTYDFHGAWRGTTGHHSPLFRG
QEDASPDRFSNTDYAVGYMLRLGAPASKLVMGIPTFGRSFTLASSETGVGAPISGPGIPGRFTKEAGTLAYYEIC
DFLRGATVHRTLGQQVPYATKGNQWVGYDDQESVKSKVQYLKDRQLAGAMVWALDLDDFQGSFCGQDLRFPLTNA
IKDALAAT

FIGURE 1457

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GGCACGAGGGCGGGAGAGACGGAGGTAGAGGGAGGACACAGAGCCGCGCCGCCCGCACCACAGACCTTCGCCTCG
CCCCGCCGGTTCCTCACCCTCGGGGAGCAACATGGCAGATAATCTCAGTGATACCTTGAAGAAGCTGAAGATAAC
AGCTGTTGACAAGACTGAGGATAGTTTAGAAGGATGCTTGGATTGTCTGCTTCAAGCCCTGGCTCAAAATAATAC
GGAAACAAGTGAAAAAATCCAAGCAAGTGGAATACTTCAGCTGTTTGCAACTCTGTTGACTCCACAGTCTTCCTG
CAAAGCCAAAGTAGCTAACATCATAGCAGAAGTAGCCAAAAATGAGTTTATGCGAATTCCATGTGTGGATGCTGG
ATTGATTTCACCACTGGTGCAGCTGCTAAATAGCAAAGACCAGGAAGTGCTGCTTCAAACGGGCAGGGCTCTAGG
AAACATATGTTACGATAGCCATGAGGGCAGAAGTGCAGTTGACCAAGCAGGTGGTGCACAGATTGTAATTGACCA
TTTAAGGTCACTGTGCAGTATAACAGATCCCGCCAATGAGAAGCTCTTGACTGTCTTTTGTGGCATGCTGATGAA
CTATAGCAATGAGAATGATTCGCTTCAAGCTCAGCTTATCAATATGGGTGTTATTCCTACCTTAGTGAAATTACT
GGGCATCCACTGCCAAAATGCAGCTCTTACAGAA**ATG**TGTCTTGTTGCATTTGGTAATTTAGCAGAACTTGAGTC
AAGTAAAGAACAGTTTGCCAGTACAAACATTGCTGAAGAGCTAGTAAAACTCTTCAAGAAACAAATAGAACATGA
TAAGAGAGAAATGATTTTTGAAGTTCTTGCTCCATTGGCAGAAAATGATGCTATTAAACTACAGCTGGTTGAAGC
AGGCCTAGTAGAGTGTCTACTAGAGATTGTTCAGCAAAAAGTGGATAGTGACAAAGAAGATGATATTACTGAGCT
CAAAACTGGTTCAGATCTCATGGTTTTATTACTTCTTGGAGATGAATCCATGCAGAAGTTATTTGAAGGAGGAAA
AGGTAGTGTATTTCAAAGGGTACTCTCTTGGATCCCATCAAATAACCACCAGCTACAGCTTGCTGGAGCATTGGC
AATTGCAAATTTTGCCAGAAATGATGCAAATTGTATTCATATGGTAGACAATGGGATTGTAGAAAAACTTATGGA
TTTACTGGACAGACATGTAGAAGATGGAAATGTAACAGTACAGCATGCAGCACTAAGTGCCCTCAGAAACCTGGC
CATTCCAGTTATAAATAAAGCAAAGATGTTATCAGCTGGGGTCACAGAGGCAGTTTTGAAATTTCTTAAATCTGA
AATGCCTCCTGTTCAGTTCAAACTTCTGGGAACATTAAGAATGTTAATAGATGCACAAGAAGCTGCTGAACAATT
GGGAAAGAATGTTAAGTTAGTGGAGCGTTTGGTGGAATGGTGTGAAGCCAAAGATCATGCTGGTGTGATGGGGGA
GTCAAACAGACTGCTGTCTGCCCTTATACGACACAGTAAATCAAAAGATGTAATTAAAACCATTGTGCAGAGTGG
TGGCATCAAGCATCTAGTTACCATGGCAACTAGTGAACATGTAATAATGCAGAATGAAGCTCTTGTTGCTTTGGC
ATTAATAGCAGCTTTAGAATTGGGCACTGCTGAGAAAGATCTAGAAAGTGCTAAACTTGTACAGATTTTACATAG
ACTGCTAGCAGATGAGAGAAGTGCTCCTGAAATCAAATATAATTCCATGGTCCTGATATGTGCTCTTATGGGATC
TGAATGTCTACACAAGGAAGTACAGGATTTGGCTTTTCTAGATGTCGTATCCAAACTTCGCAGTCATGAGAACAA
AAGTGTTGCCCAGCAGGCCTCTCTCACAGAGCAGAGACTTACTGTGGAAAGC**TGA**GAACTGCCCGATACACGGCA
TCATCCCATCTCTAATTTCCCCTCTGTCCTCCATCCAGCGGCTTCTTCCGCTTCATTCTCTACCATACCACTTGT
GCATGCATGTGATGTTCTAATACCAATTGAAGAACCGCTGTAGGTACCTCCCTAATAAGATTTCTAAACCTATAG
TTAGTGTGATCATGACTTTGTCAAAGGCAAGTCTCCACCCATAACCGTTCTCTTGTATTCCTGTTGCTTGAGCTA
CATTAAGTAGAATGTGCATGTTGTAGTCCTATGATGATGTAAACTTGGTACTACATAATGACTTGCTCCACACAT
GCAGTAAACTACATAATGATGTACTGGTAAACTAGAAACAAAGAATGCAGCAGGATCTGTCTAGCTTATTAAAGA
TGAAACTGAATTGGAAAAATAGCTCCATTTTTTGGTGCTTGGGAAGCACAGTGACCAAAAAAGTTGTATGGCTGC
TTATTCATTAGTCTTTCCTACTGATGTCAAATCCATGGTACCTAGAGTTAAATAAAATTCCAATGCTCTTACTCT
TTAAAAAAAAAAAAAAAAAAAA
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FIGURE 1458

MCLVAFGNLAELESSKEQFASTNIAEELVKLFKKQIEHDKREMIFEVLAPLAENDAIKLQLVEAGLVECLLEIVQ
QKVDSDKEDDITELKTGSDLMVLLLLGDESMQKLFEGGKGSVFQRVLSWIPSNNHQLQLAGALAIANFARNDANC
IHMVDNGIVEKLMDLLDRHVEDGNVTVQHAALSALRNLAIPVINKAKMLSAGVTEAVLKFLKSEMPPVQFKLLGT
LRMLIDAQEAAEQLGKNVKLVERLVEWCEAKDHAGVMGESNRLLSALIRHSKSKDVIKTIVQSGGIKHLVTMATS
EHVIMQNEALVALALIAALELGTAEKDLESAKLVQILHRLLADERSAPEIKYNSMVLICALMGSECLHKEVQDLA
FLDVVSKLRSHENKSVAQQASLTEQRLTVES

FIGURE 1459

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GGCACGAGGGCGACCGCTCCCCGGCGGGAGCCAGCGAAGGTTTCCATGTCAGAGGCCGATGGAGAACTGAAGATT
GCCACCTACGCACAAAGGCCATTGAGACACTTCGTGTAGCTGGAAGACACCAACTTCCTGACAGGAGCTTTATTT
CATTTGGGATTTCAAGTTTACAGATGGTATCTTCTCAAAAGTTGGAAAAACCTATAGAGATGGGCAGTAGCGAAC
CCCTTCCCATCGCAGATGGTGACAGGAGGAGGAAGAAGAAGCGGAGGGGCCGGGCCACTGACTCCTTGCCAGGAA
AGTTTGAAGATATGTACAAGCTGACCTCTGAATTGCTTGGAGAGGGAGCCTATGCCAAAGTTCAAGGTGCCGTGA
GCCTACAGAATGGCAAAGAGTATGCCGTCAAAATCATCGAGAAACAAGCAGGGCACAGTCGGAGTAGGGTGTTTC
GAGAGGTGGAGACGCTGTATCAGTGTCAGGGAAACAAGAACATTTTGGAGCTGATTGAGTTCTTTGAAGATGACA
CAAGGTTTTACTTGGTCTTTGAGAAATTGCAAGGAGGTTCCATCTTAGCCCACATCCAGAAGCAAAAGCACTTCA
ATGAGCGAGAAGCCAGCCGAGTGGTGCGGGACGTTGCTGCTGCCCTTGACTTCCTGCATACCAAAGACAAAGTCT
CTCTCTGTCACCTAGGCTGGAGTGCTATGGCGCCATCAGGGCTCACTGCAGCCCCAACCTCCCTGGGCTCCAGTG
ATCCTCCCACCTCAGCCTCCCAAGTAGCTGGGACTACAGGCATTGCTCATCGTGATCTGAAACCAGAAAATATAT
TGTGTGAATCTCCAGAAAAGGTGTCTCCAGTGAAAATCTGTGACTTTGACTTGGGCAGTGGGATGAAACTGAACA
ACTCCTGTACCCCATAACCACACCAGAGCTGACCACCCCATGTGGCTCTGCAGAATACATGGCCCCTGAGGTAG
TGGAGGTCTTCACGGACCAGGCCACATTCTACGACAAGCGCTGTGACCTGTGGAGCCTGGGCGTGGTCCTCTACA
TCATGCTGAGTGGCTACCCACCCTTCGTGGGTCACTGCGGGGCCGACTGTGGCTGGGACCGGGGCGAGGTCTGCA
GGGTGTGCCAGAACAAGCTGTTTGAAAGCATCCAGGAAGGCAAGTATGAGTTTCCTGACAAGGACTGGGCACACA
TCTCCAGTGAAGCCAAAGACCTCATCTCCAAGCTCCTGGTGCGAGATGCAAAGCAGAGACTTAGCGCCGCCCAAG
TTCTGCAGCACCCATGGGTGCAGGGGCAAGCTCCAGAAAAGGGACTCCCCACGCCGCAAGTCCTCCAGAGGAACA
GCAGCACAATGGACCTGACGCTCTTCGCAGCTGAGGCCATCGCCCTTAACCGCCAGCTATCTCAGCACGAAGAGA
ACGAACTAGCAGAGGAGCCAGAGGCACTAGCTGATGGCCTCTGCTCCATGAAGCTTTCCCCTCCCTGCAAGTCAC
GCCTGGCCCGGAGACGGGCCCTGGCCCAGGCAGGCCGTGGTGAAGACAGGAGCCCGCCCACAGCACTCTGAAATG
CTCCAGTCACACCTTATAGGCCCTAGGCCTGGCCAGGCATTGTCCCCTGGAAACCTGTGTGGCTAAAGTCTGCTG
AGCAGGCAGCAGCCTCTGCTCTGTGGCTCCATTCAGGCTTTTTCATCTACGAAGGCCCTGAGGTTCCCATCAACC
CCCATTTCCCTAGGGTCCTGGAGGAAAAAGCTTTTTCCAAAGGGGTTGTCTTTGAAAAGGAAAGCAATCACTTCT
CACTTTGCATAATTGCCTGCAGCAGGAACATCTCTTCACTGGGCTCCACCTGCTCACCCGCCTGCAGATCTGGGA
TCCAGCCTGCTCTCACCGCTGTAGCTGTGGCGGCTGGGGCTGCAGCCTGCAGGGAGAAGCAAGAAGCATCAGTTG
ACAGAGGCTGCCGACACGTGCCTCTTCCCTCTCTTCTCTGTCACCCTCCTCTGGCGGTCCTTCCACCTTCCTCTG
TCCTCCGGATGTCCTCTTTGCCCGTCTTCTCCCTTGGCTGAGCAAAGCCATCCCCTCAATTCAGGGAAGGGCAAG
GAGCCTTCCTCATTCAGGAAATCAAATCAGTCTTCCGGTCTGCAGCACGGAAAAGCACATAATCTTTCTTTGCTG
TGACTGAAATGTATCCCTCGTTTATCATCCCCTTTGTTTGTGATTGCTGCTAAAGTCAGTAGTATCGTTTTTTTA
AAAAAAAAGTTTGGTGTTTTTAACCATGCTGTTCCAGCAAAGATGATACCTTAAACTCCCACTGCAAGCCCATGA
ACTTCCCAGAGAGTGGAACGGCTTGCTCTTCTTTCTAGAATGTCCATGCACTTGGGTTTTAATCAGCAGTTCCCT
ATTATTCTGATTTTAAGCTGTTCCTGTGATGAACTTAGAGACAGCATCGGTGTCTGCTGCTGTGTCCCCAGGTCT
TGTGTGGGTGGCACAGATCTGGGCAGTTAGATAGTGCTCTGTGCCTAAGGTGAAGCCACACTAGGGTGAAGCCTC
ACTTCCCTGTTTGAGCAATGCAGTGCCTGCTGCCCGTGTGCATGAAGGTACAGCCATTCAGATAAGTGGAACTAT
TGAGTTACATAAAGAAAATAGATTTGCATTTGTCAGGCAGACGTTTATACAACACCACGGTGCTTTTATACATTG
TGCTTATTTTAATAAAACTGAAATTCTAAAAAAAAAAAAAAAAA
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FIGURE 1460

MVSSQKLEKPIEMGSSEPLPIADGDRRRKKKRRGRATDSLPGKFEDMYKLTSELLGEGAYAKVQGAVSLQNGKEY
AVKIIEKQAGHSRSRVFREVETLYQCQGNKNILELIEFFEDDTRFYLVFEKLQGGSILAHIQKQKHFNEREASRV
VRDVAAALDFLHTKDKVSLCHLGWSAMAPSGLTAAPTSLGSSDPPTSASQVAGTTGIAHRDLKPENILCESPEKV
SPVKICDFDLGSGMKLNNSCTPITTPELTTPCGSAEYMAPEVVEVFTDQATFYDKRCDLWSLGVVLYIMLSGYPP
FVGHCGADCGWDRGEVCRVCQNKLFESIQEGKYEFPDKDWAHISSEAKDLISKLLVRDAKQRLSAAQVLQHPWVQ
GQAPEKGLPTPQVLQRNSSTMDLTLFAAEAIALNRQLSQHEENELAEEPEALADGLCSMKLSPPCKSRLARRRAL
AQAGRGEDRSPPTAL

FIGURE 1461A

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TGGAAGAAGATGGCGGAAGGCGGAGCGGCGGATCTGGACACCCAGCGGTCTGACATCGCGACGCTGCTCAAAACC
TCGCTCCGGAAAGGGGACACCTGGTACCTAGTCGATAGTCGCTGGTTCAAACAGTGGAAAAAATATGTTGGCTTT
GACAGTTGGGACAAATACCAGATGGGAGATCAAATGTGTATCCTGGACCCATTGATAACTCTGGACTTCTCAAA
GATGGTGATGCCCAGTCACTTAAGGAACATCTTATTGATGAATTGGATTACATACTGTTGCCAACTGAAGGTTGG
AATAAACTTGTCAGCTGGTACACATTGATGGAAGGTCAAGAGCCAATAGCACGAAAGGTGGTTGAACAGGGTATG
TTTGTAAAGCACTGCAAAGTAGAAGTATATCTCACAGAATTGAAGCTATGTGAAAATGGAAACATGAATAATGTT
GTAACTCGAAGATTTAGCAAAGCTGACACAATAGATACAATTGAAAAGGAAATAAGAAAAATCTTCAGTATTCCA
GATGAAAAGGAGACCAGATTGTGGAACAAATACATGAGTAACACATTTGAACCACTGAATAAACCAGACAGCACC
ATTCAGGATGCTGGTTTATACCAAGGACAGGTATTAGTGATAGAACAGAAAAATGAAGATGGAACATGGCCAAGG
GGTCCTTCTACTCCTAATGTGAAAAACTCAAATTACTGTCTTCCATCATATACCGCTTATAAGAACTATGATTAT
TCGGAACCTGGAAGAAACAATGAACAGCCAGGCCTCTGTGGCCTAAGTAACTTGGGAAATACGTGTTTCATGAAC
TCAGCTATTCAGTGTTTGAGCAACACACCTCCACTTACTGAGTATTTCCTCAATGATAAGTATCAAGAAGAACTG
AATTTTGACAATCCCTTAGGAATGAGAGGTGAAATAGCTAAATCTTATGCCGAACTGATCAAGCAAATGTGGTCT
GGAAAGTTTAGCTACGTCACCCCAAGAGCCTTTAAGACACAGGTAGGACGTTTTGCACCTCAGTTCTCTGGATAT
CAGCAGCAAGACTGTCAAGAACTGTTAGCTTTCCTATTAGATGGATTACATGAGGATTTGAATAGAATTAGGAAA
AAACCATATATACAATTAAAAGATGCAGATGGAAGGCCAGATAAGGTGGTTGCCGAAGAAGCCTGGGAAAACCAT
TTAAAACGAAATGATTCTATCATAGTAGATATATTTCATGGCCTTTTCAAATCAACTTTAGTTTGTCCTGAGTGT
GCTAAGATTTCAGTAACATTTGATCCTTTTTGTTACTTGACACTTCCATTGCCCATGAAAAAAGAACGCACCTTG
GAAGTTTACTTAGTTAGAATGGATCCGCTTACCAAACCTATGCAGTACAAAGTGGTTGTCCCCAAAATTGGAAAC
ATATTAGATCTTTGTACAGCATTGTCTGCTTTGTCAGGAATACCTGCAGATAAGATGATAGTTACTGATATATAC
AATCATAGATTTCACAGAATATTCGCTATGGATGAAAACCTTAGTAGTATTATGGAACGGGATGATATTTATGTG
TTTGAAATTAACATCAATAGGACAGAAGATACAGAGCACGTGATTATTCCTGTTTGCCTAAGAGAAAAATTCAGA
CACTCGAGTTATACCCACCATACTGGTTCTTCACTTTTTGGTCAGCCCTTTCTTATGGCTGTACCACGAAACAAT
ACTGAAGACAAACTTTATAATCTCCTGCTCTTGAGAATGTGCCGATATGTCAAAATATCTACTGAAACTGAAGAA
ACTGAAGGATCCCTACACTGCTGTAAGGACCAAAATATTAATGGGAATGGCCCAAATGGCATACATGAAGAAGGC
TCACCAAGTGAAATGGAAACAGATGAGCCAGATGATGAATCCAGCCAGGATCAAGAACTTCCCTCAGAGAATGAA
AACAGTCAGTCTGAAGATTCAGTTGGAGGAGATAATGATTCTGAAATGGATTATGTACTGAGGATACTTGCAAA
GGTCAACTCACGGGACACAAAAAACGATTGTTTACATTCCAGTTCAACAACTTAGGCAATACTGATATCAACTAC
ATCAAAGATGATACCAGGCATATAAGATTTGATGATAGGCAGCTTAGGCTAGATGAAAGATCTTTTCTTGCTTTG
GATTGGGATCCTGATTTGAAAAAAAGATATTTTGATGAAAATGCTGCTGAGGACTTTGAAAAACATGAAAGTGTG
GAGTATAAACCTCCTAAAAAACCCTTTGTGAAATTAAAAGATTGCATTGAACTTTTTACAACAAAAGAAAAGCTA
GGTGCTGAAGATCCCTGGTATTGTCCGAATTGTAAAGAACATCAGCAAGCCACAAAGAAATTGGATTTATGGTCC
CTGCCTCCAGTACTTGTAGTACATCTCAAGCGATTTTCTTACAGTCGATACATGAGAGACAAGTTGGATACCTTA
GTTGATTTTCCTATCAATGACTTGGATATGTCGGAATTCTTAATTAATCCAAATGCAGGTCCTTGCCGCTATAAT
CTGATTGCTGTTCCAACCACTATGGAGGGATGGGAGGAGGACACTATACTGCTTTTGCAAAAAATAAAGATGAT
GGAAAATGGTACTATTTTGATGACAGTAGTGTCTCCACTGCATCTGAAGACCAAATTGTGTCCAAAGCAGCATAT
GTACTCTTCTACCAGAGACAAGACACTTTCAGTGGAACTGGCTTTTTTCCTCTTGACCGAGAAACTAAAGGTGCT
TCAGCTGCCACTGGCATCCCATTAGAAAGTGATGAAGATAGCAATGATAATGACAATGATATAGAAAATGAAAAC
TGTATGCACACTAACTAATGAAAGTCCTAGAAGCCATAAAAGAGACACTTTCCTGCTGGTGGTATCTATGGAAAT
GATGAAGTTACCCACCACATTAAAACAAAGTCTGAGATGGGGAGTTTCAGATAACCGAATGTAAATCCTTATC
AGATTTTAACTTGTGCAGTACTTGAAGTGAAACACAATGAAAACTTTAACAGAAATTGTCTCTTAATACATTTAC
AGTCTTGTATTTACAAGCTAAATATATATAGGAAATCACAAATAAATCCCTTTTAAGTTTGCTGCTGTTTTGATT
AATTATGTTTCCTTTAATTTTTTGGATGTGAGTTGATGACAAATGTTAAATTTGTGGATGTTGGTCATTTATTTT
GCTCTAATAATACTGCAAGAAAACTATGGCTGAACTTAGTTTTTGGATAATCTAGTTCATGTGCATTAGGCTGCC
GTATATACTACTATGATATTTAGCTGCAGTATCAATGTGGCATAAATACTGCGGCAGCATTCTTCGAAAACCGCA
TTTTCAAATTTATCCCCGTAATCAATGTGGGCCTATTAAAAAACCAAATCATGATACAAGAACAACCTTGGAAA
AGTTATTTCCCTTTGTAATACCTTTAAAAATCCAGAGTATTATATTCATTTTACTGCCACTGTGGAAACAGGTTC
TAGATTTCATACTCCATCTAAAGTCATTTTTCAGTTACATGTAAGTATTATTTACTGCTATTGGGATCTATTCTT
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FIGURE 1461B

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CAGATATTCAAAAACATTTTTTGCTTTAAAATGCATATCTTTAATTGGGTGTTGGTCCAAAATTAAAATTTTTGC
TGTCTGTTTTTCTCTACCCCATTTTGTGGTAATTTGGCAACTTGAGCTCTCCCAATTATTGTAATATAAGGACAG
ACATAATAGTATTCTGTACCCATAGTAATAATTGCATCAAGCTTAGATGAGAAATTTTTTTCATATACTGGCCTT
TAAATCATTAATGGACAATTGGCTATAAAGGTAGGTCTGTTAACTTTCTTTGTGTGTTCCTGATGGAATTCACCA
TAGCCTTACAGCTTTTCTCAGAAGGTAACTTGTTATAAGAGAAATGGCATTTGCATGTTCCAGAGTCAGAACCTG
TACAGTATATAAAGCATAAACACCTTGAATTTGATTTTAGTTCACCACATTCAAGGATCCAGGATGCCAAAAATA
TGTGTGAACATTTGAAACATTTTTATTTGCTGCTTTTTCCCTTTGATATAGTTGAAAGAATGTATTGTAAATTGG
CATACAATACTGCCTTTAATAGAAAACCTAAATGCTGGGGCACATTTCACATATCGACTACCTGAGAAATTGCTT
TGTGTCCCACTGTTATTAAAGCAAAAGTATAATGTTCTTCACTTGAACTAATCAAATACAATAGATTATAAATT
GTGTATTGTAAATAAAAGTTCACTCTGTGAGTGCACATTTTGGTAAATTATTTATTTATGTTAGCATTTAAAAGT
TTAAAAAAAATGCATTTGACCAGGATAAATGAGGTATGTTGATCATGGCTTTGCTTTATATCTTGATATTAAAGC
TGGTTTATCATCCTGGTATTTTAAAAGCTGCTTTGGGGTTTTTTTTTCTTTTTTTTTTTTAATGTAAACTAA
CCTCCTGCATGACAGAGGTTAAAATTTTGTCTGCACTTGAGTTCACTTGAGTTTACATTTGAAATGTGCATGTTT
ATTTATATAGATTTCAATAAAGCTATTCAAGGCCTT
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FIGURE 1462

MAEGGAADLDTQRSDIATLLKTSLRKGDTWYLVDSRWFKQWKKYVGFDSWDKYQMGDQNVYPGPIDNSGLLKDGD
AQSLKEHLIDELDYILLPTEGWNKLVSWYTLMEGQEPIARKVVEQGMFVKHCKVEVYLTELKLCENGNMNNVVTR
RFSKADTIDTIEKEIRKIFSIPDEKETRLWNKYMSNTFEPLNKPDSTIQDAGLYQGQVLVIEQKNEDGTWPRGPS
TPNVKNSNYCLPSYTAYKNYDYSEPGRNNEQPGLCGLSNLGNTCFMNSAIQCLSNTPPLTEYFLNDKYQEELNFD
NPLGMRGEIAKSYAELIKQMWSGKFSYVTPRAFKTQVGRFAPQFSGYQQQDCQELLAFLLDGLHEDLNRIRKKPY
IQLKDADGRPDKVVAEEAWENHLKRNDSIIVDIFHGLFKSTLVCPECAKISVTFDPFCYLTLPLPMKKERTLEVY
LVRMDPLTKPMQYKVVVPKIGNILDLCTALSALSGIPADKMIVTDIYNHRFHRIFAMDENLSSIMERDDIYVFEI
NINRTEDTEHVIIPVCLREKFRHSSYTHHTGSSLFGQPFLMAVPRNNTEDKLYNLLLLRMCRYVKISTETEETEG
SLHCCKDQNINGNGPNGIHEEGSPSEMETDEPDDESSQDQELPSENENSQSEDSVGGDNDSENGLCTEDTCKGQL
TGHKKRLFTFQFNNLGNTDINYIKDDTRHIRFDDRQLRLDERSFLALDWDPDLKKRYFDENAAEDFEKHESVEYK
PPKKPFVKLKDCIELFTTKEKLGAEDPWYCPNCKEHQQATKKLDLWSLPPVLVVHLKRFSYSRYMRDKLDTLVDF
PINDLDMSEFLINPNAGPCRYNLIAVSNHYGGMGGGHYTAFAKNKDDGKWYYFDDSSVSTASEDQIVSKAAYVLF
YQRQDTFSGTGFFPLDRETKGASAATGIPLESDEDSNDNDNDIENENCMHTN

FIGURE 1463

CCAGGGCCGGTGTCTCCAGGAGAGGGCCGAGCGCACAGCAGCTCTAGGACCTCGCAGGCGCCTCGGCGCGGCACT
CACGTAGAGCCCAAGGAGCAGTCCCCGACCTCTCCTCGGAGGGCCGTGCAGGCTTCCCCGGCGGTCCCTACCTGC
GCCTCCGCCCGCCAGCGGCGCTGGGGAAGGGGAGGAGCGGCCCGGACGCTGCCCGCCGCGCGCAGGGAGCCGCCC
GCCGCAGGCCTTGCCGCCGCCCGCCCGCGCTCTCCCCGCGAGCCCCGGAGGGCGGGTCTGCGGCCGAGCCAGCGG
CGGCGGAGGGGCAGCGCAGACCTCTGCGGCCCGGGCGGGCGCGGCGCGGGAGTCCTGGGCCGCTGGCGGGCAACG
CCTCTGCCCGACCTCGCTGGGGAAGGCTGGCGCTGCTGCCCGGCCGGAGCCAGGGGCAGGCTGCGCAAAGGTGAC
TTAGGGAGACCTTGCGGGCCGCCCTGGGTCGCGCCTCCCGGATCGGCTCGCCTCGGCTCGACTGGAGGGGAGGAG
GAGGAGCAGGCCGAGCGCATTCGCGCTGGAGCTTGCGAGGAGCGCAGGGTGGAGCGCGCCAGCCGGGGTCCTCGG
ATCTGGCCCAGGTGAGGAATTTTAAATTGGAACAAGAGCAAGAAAAAAACAAATCTTGTCAGAAGCACTGGAGA
CGCTGGCCACTGAACATCATGAATTAGAGCAGTCTCTGGTGAAAGGCTCTCCACCCGCCAGCATCCTTAGCGAGG
ACGAGTTCTATGATGCGCTGTCAGATTCCGAGTCCGAAAGGTCCCTGAGTAGATTGGAAGCAGTGACAGCACGCT
CCTTTGAAGAGGAAGGAGAGCATTTGGGCAGTAGAAAACACAGA**ATG**TCCGAAGAAAAGACTGTGGTGGCGGAG
ATGCTCTCTCCAATGGCATCAAGAAACACAGAACAAGTTTGCCTTCTCCTATGTTTTCCAGAAATGACTTCAGTA
TCTGGAGCATCCTCAGAAAATGTATTGGAATGGAACTATCCAAGATCACGATGCCAGTTATATTTAATGAGCCTC
TGAGCTTCCTACAGCGCCTAACTGAATACATGGAGCATACTTACCTCATCCACAAGGCCAGTTCACTCTCTGATC
CTGTGGAAAGGATGCAGTGTGTAGCTGCGTTTGCTGTATCTGCTGTTGCTTCTCAGTGGGAACGGACTGGAAAAC
CTTTCAACCCACTGCTGGGAGAGACTTATGAATTAGTGCGAGATGACCTTGGATTTAGACTCATCTCCGAACAGG
TCAGCCATCACCCACCAATCAGTGCATTTCATGCTGAAGGATTAAACAATGACTTCATCTTTCATGGCTCTATCT
ATCCCAAACTGAAATTCTGGGGGAAGAGTGTAGAAGCAGAACCCAAAGGAACCATCACCTTGGAGCTCCTTGAAC
ACAATGAGGCATATACATGGACAAATCCCACCTGCTGTGTGCATAATATCATTGTGGGTAAACTGTGGATCGAAC
AGTATGGCAATGTGGAAATTATAAACCACAAGACTGGGGACAAATGTGTGTTGAATTTTAAGCCATGTGGCCTTT
TTGGTAAGGAATTACACAAAGTTGAAGGCTACATTCAAGATAAAAGCAAAAGAAGCTCTGTGCCCTCTATGGGA
AGTGGACTGAATGTTTATACAGTGTTGACCCTGCCACGTTTGACGCTTACAAAAAAAATGATAAGAAAAATACAG
AAGAGAAGAAGAACAGCAAACAGATGAGCACCTCTGAGGAGTTGGATGAAATGCCAGTGCCGGATTCTGAAAGTG
TATTCATTATCCCTGGAAGCGTTCTTCTATGGCGAATAGCCCCACGGCCTCCAAATTCTGCCCAGATGTATAATT
TTACTAGTTTTGCAATGGTTTTGAATGAAGTAGACAAAGACATGGAGAGTGTGATTCCCAAGACAGACTGCAGGT
TACGGCCTGACATCAGAGCCATGGAAAATGGAGAGATAGATCAAGCTAGTGAAGAAAAAAACGACTTGAGGAAA
AACAAAGAGCAGCCCGCAAAAACAGGTCCAAGTCAGAAGAGGACTGGAAGACGAGGTGGTTCCATCAAGGTCCTA
ATCCCTACAATGGAGCACAGGACTGGATTTACTCTGGCAGCTACTGGGACAGAAATTACTTCAATTTGCCTGACA
TTTAT**TAA**AATGCATACAAGTCAGGGTGTTTGGCTAATCTACAAATAAGTCTTAAACCTATGTTTTTAAATTTTT
TTCCCTTGGTTTCTACTTATCTTTTAAAAAAAAAATGAAAAAACACTCATGAGATAACTGCATTTCACCCAACAA
AAGCAGGGTATAAGGCGATATTGGTGATGAAAGTCTTAGGAAAAATGCATAATTTTGCTATAAAATGTACTTATT
TGGAATACTATTTTATATAGAGGTAAGAGAACACTGCTGGGGAATATGCTTTTTATGGTTGCTGTTGCCATATTT
ACTGAAGGTTTATACCTAAATGTAACTTTAGCTTTATGGAACTATATAGTAATCCCAAATCAAGTTATTTTGAAT
ATTTTTATGCTGTCATGCTTGAATGTTTTAGATGTAACCTTTGACATATTTAGAACTCTCCTCCTATACAATGTT
TATTCTCAGATATAGAGGTTATGTCATTTTATAAAGACTTCATTGATAAGATGGCTTTTATTCATACTAATCCTC
CCAATGTTACCCCTTCCATCTTCCAAGAAGAAAAAAAATGCCTGAATATTCAGAATAGATATTTCTGATTTGAAA
ATTCTAAAGAATTAAACTGGAAAGTATTTCATTTACTTAGTGCTCTGAATTTACTTTTACAGTTTTCTGCAGTC
AGTATCATTAAAATGGTTAAGTTTACATTTGAACTGAAAATATGTATAAAATCTAGCAATTCACAAAAATGCCCT
AGAAATATAGATTTTAATCACCATTACATAATGACAAACCTTGTTAAATGCTTCCACTTCCAGTGGCAAATGCCA
CTAGGGAAAGTAAGTTGCACTCATGTAAGTATCAAACTATATAAAAGGAGGCCTTGTGCATTTCAAGTTTGCAAA
GTACCTGTGTACTTAAAATATGTGTGGAGACCTACTGTACAGTAGTTTTGCCCCTTTAATTGGGGCACATTCATC
TTAAATCTTATAGTATTTATCCACCCAAACCCCAGACTGAGATACTGCTCCCAGGGGCCTAGGTAGCTGCCAGTC
CGTGATTTTAATTGCTGTCTTGAAGTTAACAAGTGTTATAATGAAATAATCTACCTGATGCTAAATAAAGGCTTT
AGAATGTTCCCCAAAAAAAAAAAAAAAAAAAAAAAAAAA

FIGURE 1464

MSEEKDCGGGDALSNGIKKHRTSLPSPMFSRNDFSIWSILRKCIGMELSKITMPVIFNEPLSFLQRLTEYMEHTY
LIHKASSLSDPVERMQCVAAFAVSAVASQWERTGKPFNPLLGETYELVRDDLGFRLISEQVSHHPPISAFHAEGL
NNDFIFHGSIYPKLKFWGKSVEAEPKGTITLELLEHNEAYTWTNPTCCVHNIIVGKLWIEQYGNVEIINHKTGDK
CVLNFKPCGLFGKELHKVEGYIQDKSKKKLCALYGKWTECLYSVDPATFDAYKKNDKKNTEEKKNSKQMSTSEEL
DEMPVPDSESVFIIPGSVLLWRIAPRPPNSAQMYNFTSFAMVLNEVDKDMESVIPKTDCRLRPDIRAMENGEIDQ
ASEEKKRLEEKQRAARKNRSKSEEDWKTRWFHQGPNPYNGAQDWIYSGSYWDRNYFNLPDIY

FIGURE 1465

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GGCACGAGGAAGCTACTCAGATAAGAGGCTCCAAGAGGACATTTTTGGATGTGAAAAACAATGAGAAGGAGGACA
ACACACATTTACAATCGTCTTAATTTTGTACTCAGAAAAAGGATGTGAAGACAATGCACAGGGAATACAATAGTT
TCAGATCTGTGTACAGTTTCCTTTTGCTTCATCTCCTGCAACAATGTAATGAAGACACCATGATATCATTAACAT
TTCACACAAAAGGAAAATGAGGCTGAAATGGTGTGGGCAAGGCCCAGGAATCTGGAGCATCCCTAACCAAGCAGC
AGAGCACCTGGGATAGAGAAAGTGCTCAAGAATGTTCACTTACTGATTACTACAATCAAAAAAAGATACGACACT
AATTTACCACATTCTTCTTACTTATTTTATGAGATACTATTCTTCCAAGGTGGAGAAAGTGGAGAAAGTAGAGTG
ACGCAGCTAAGGGAGTAAATCGACCCTCAGCCAACAAGTGGCAAAAGCCTGAAGAAAGTGATCAAGATCACTGAT
GACCCCGCGGCCCATCTCCAAGGGGGCGGGTATCACAACCCCGACGCCACACCACGTATCATTCCGCAAAACTCC
CGCGCCTCCCACGCAGAACTGGCAAGAGGGAAGGCGAGACAGCAGTGAACAGCTGGTACGCAGCACCCACAGCAC
CGCGGCAGCAGCTAGTGCCGACTCCCGCCTAGCTCTTTTGACTCTGTTCGCGGGAAGAATGGGGAAACAGTAAGG
TTGCGGCGCCTCCCGCGAGACGAGGTACCTGAGGCTGGCCCCGCAGTCCCCGCCGCACCAGCACCGGAGCTTCA
CACCCCACTTCCGGGGTCAAGTCACCGCCGGGAATCCTGTGATCGCAGAAAGGTAGTCTCAGGTTCCGCCCCTAT
CCAAGTCCCGCCTCCACTGCCTCTCGCCCTGTATCTGTCAACTTCCGGGACGCCGCGCGTCACTAAGCAGCCAAT
CTCCACTTCCGGACTCATCCAGCCCCTTCTCCACCCCTTTCAGAGACAGCGCGATTGCGATTTAGGTTTCCGCGC
ATTTAATTGGCGAAGCTGGAGCGCTAGTCTTCGCTGATTGGTGCCGAGAAATCTGCCCCATAGACACCCGCGGGG
CGCACAGTTTCAGTCGTCCGTGGGTTTCCCGCCAGCCGCAGTCTTGGACCATAATC**ATG**GTGGACATGATGGACT
TGCCCAGGTCGCGCATCAACGCCGGCATGCTAGCTCAATTCATCGACAAGCCTGTCTGCTTCGTAGGGAGGCTGG
AAAAGATTCATCCCACCGGAAAAATGTTTATTCTTTCAGATGGAGAAGGAAAAAATGGAACCATCGAGTTGATGG
AACCCCTTGATGAAGAAATCTCTGGAATTGTGGAAGTGGTTGGAAGAGTAACCGCCAAGGCCACCATCTTGTGTA
CATCTTATGTCCAGTTTAAAGAAGATAGCCATCCTTTTGATCTTGGACTTTACAATGAAGCTGTGAAAATTATCC
ATGACTTCCCTCAGTTTTATCCTTTAGGGATTGTGCAACATGAT**TGA**TCTTGATGGATTTTCATACGATTGTAAA
TGAGCTATATTAAAGTCTATTAAAGGAAAAAAAAAAAAAAAAAAAAAA
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FIGURE 1466

MVDMMDLPRSRINAGMLAQFIDKPVCFVGRLEKIHPTGKMFILSDGEGKNGTIELMEPLDEEISGIVEVVGRVTA
KATILCTSYVQFKEDSHPFDLGLYNEAVKIIHDFPQFYPLGIVQHD

FIGURE 1467

GTTTTGAAAGTTGATGGAGCGAACTGCTTTTCCAAAGACTCTTTTGAAAAACTTTTTAAGTAGGCCATTCTGACT
TTAACATTTCTCTTTGTCTTAACATTAGACAAAAAGTAACCTTCCTGAAGAGGACATGTGATTGGAAGTTGTCAA
TTGTTGAAGCATTGGTAACTCCAGTCTCTAACGTTTTAGAAAATCATAACAAGCGGTTCTCTACCCTGTAAAGGT
GAACTACTGAGTTCTTCATT**ATG**TCTGATGGAGATTATGATTACCTCATCAAGTTTTTAGCTTTGGGAGACTCTG
GTGTAGGGAAGACCAGTGTACTTTACCAATATACAGATGGTAAATTAACTCCAAATTTATCACAACAGTGGGCA
TTGATTTCAGGGAAAAAGAGTGGTGTACAGAGCCAGTGGGCCGGATGGAGCCACTGGCAGAGGCCAGAGAATCC
ACCTGCAGTTATGGGACACAGCAGGGCAGGAGAGGTTTCGTAGCTTAACGACAGCGTTCTTCAGAGATGCTATGG
GTTTTCTTCTACTTTTTGATCTGACAAATGAGCAAAGTTTCCTCAATGTCAGAAACTGGATAAGCCAGCTACAGA
TGCATGCATATTGTGAAAACCCAGATATAGTGCTGTGTGGAAACAAGAGTGATCTGGAGGACCAGAGAGTAGTGA
AAGAGGAGGAAGCCATAGCACTCGCAGAGAAATATGGAATCCCCTACTTTGAAACTAGTGCTGCCAATGGGACAA
ACATAAGCCAAGCAATTGAGATGCTTCTGGACCTGATAATGAAGCGAATGGAACGGTGTGTGGACAAGTCCTGGA
TTCCTGAAGGAGTGGTGCGATCAAATGGTCATGCCTCTACGGATCAGTTAAGTGAAGAAAAGGAGAAAGGGGCAT
GTGGCTGT**TGA**GAAGTCAAGTAAGTGACATAGTAGTTCAGGTGGCCCATGCCTGGGATCTTCTCTATGATTGATA
CATGGCACAGTGAGAGATTAATGGGCATTGTGTACAAATTGCTTCTCACCATCCCCATTAGACCTACGAATAAAG
CATCCGGTTCTAAAATTAATTTGTTGCAGCTTTGTAAATATTTCTTTAAGATTCAGCCTGAGAGTTAGGAGAAAT
ATTTCAGAGCCAAAAGTGCCTTATACAACCTTAGCCTATTATAGTAAATCATTCAAGGATTCAGAATTTTGCAGT
CACAGAAGAGTGTATTTATTATGTAGAATGAATGAGGGTACTGTCACCTGCCTTAATGTAGGTAGGCCCAGAGTC
TTACATTTAAGATCTTACATGCAGTTATAAAACCGCCACAGTCTTCAATCCAGATTTGAAGACTCATGCCATAGG
TGACATTCTAAAATACCATTAAAGCCACTTAAATGTTAAATAAGAATATACATGCACATCAGCTCAATGTCTTTG
AGTATTAATTTTATGTAAGCATTCTATTTAACATGAATATAGGACAAATCATGGCTATATCTATAGACCTTGGAT
AAACTGGATTGACCAATTATACACTCACGGTGACTTTTTTATTGGTGGGAAGGGGATTGGGGTGGGGCAGGCTGG
CTTAATGTAATATGAGCAACCAAAGTGGGACTTCTGTCTCCCCGCTATATTCCCATTGCTCTGAATGGTTGATTG
AAGGGTCAGGGAACTAGATTTTATGGCTTTAGTTCACTGTGATTGTACATTTATACTTGGCCTATGTGCTGGCCG
CACCTGAACATAGCTGGTGCTTATGCCGAGTTATTTGTGATGAGTAAATATTTAGTTTCTTTTTCTTCATATTTA
TAATGTTGATCTGGCATCCTCAGGCTGCAGCTTTATTAGCTTATAAATTACTCATCTCTGTCTTTACCAGCAGGC
TCTGTATTGTTGATATTTGCAACTTGTTTTGCTTTTCCATTGGTGGAATTGAAATAATTAGTTTTTAATTACATA
AGATGCCTGTTTGCTATTGGTGGAAGATAGATGTTCATATTGAAGCAGTCACATTTGTACTGTAGTTCAATAAA
AGAAAAATGAAGTATTCTGTAGCCTATATTTTTCATAGAGCTCATGAGCATTTACTGTACTTGCTGGGTCTTGCC
AAGATCATTTATTCCGCTGCATTGCCAAAGTGTCTTCATACCAAATTAAAGGTGGTTTTAATATATGTTTCATGG
AAGTTGTTTATAAAATTCAAAGGTATTTCATTTAGGTGAAAGTCTTATTTATTAAAGTGGTTTGAATAAAGTAG
ATCAAAACTTCCAGAGATCTTAATGGCTATATAGGAAGAAATATCACTCACCATAATTTAAATAAAGAATAAAAA
TACATGTATTTTATGGTGGCAAATGTTTGGTAGAACTGTAATTAGAAAAATACAAGTATATTTGCGTGATGGTTA
CACTAGAAGCCCAGACTTTACGACTACACAATATATTCATGTATCTAAACTGTACTTGTACCCCCTAAATTTATT
TTTAAAAAAAAAAAAAAAAAA

FIGURE 1468

MSDGDYDYLIKFLALGDSGVGKTSVLYQYTDGKFNSKFITTVGIDFREKRVVYRASGPDGATGRGQRIHLQLWDT
AGQERFRSLTTAFFRDAMGFLLLFDLTNEQSFLNVRNWISQLQMHAYCENPDIVLCGNKSDLEDQRVVKEEEAIA
LAEKYGIPYFETSAANGTNISQAIEMLLDLIMKRMERCVDKSWIPEGVVRSNGHASTDQLSEEKEKGACGC

FIGURE 1469

AGCCGCCGCCTCGCCGCTTCCCCTCGTCGGAGCGGCCGCTCGTCCGCCCGGCTTGAGGCCCGCGGGGAGCGCGGC
GCAATTCGTCGGCCCGCGGGGGGGCGGCCTCCCGGCATCTTCGCGGCGACCAAGGACTACCAGGAAGGGGAGCGG
CTGGG**ATG**GCGCGTCCGCGGCCCCGCGAGTACAAAGCGGGCGACCTGGTCTTCGCCAAGATGAAGGGCTACCCGC
ACTGGCCGGCCCGGATTGATGAACTCCCAGAGGGCGCTGTGAAGCCTCCAGCAAACAAGTATCCTATCTTCTTTT
TTGGCACCCATGAAACTGCATTTCTAGGTCCCAAAGACCTTTTTCCATATAAGGAGTACAAAGACAAGTTTGGAA
AGTCAAACAAACGGAAAGGATTTAACGAAGGATTGTGGGAAATAGAAAATAACCCAGGAGTAAAGTTTACTGGCT
ACCAGGCAATTCAGCAACAGAGCTCTTCAGAAACTGAGGGAGAAGGTGGAAATACTGCAGATGCAAGCAGTGAGG
AAGAAGGTGATAGAGTAGAAGAAGATGGAAAAGGCAAAAGAAAGAATGAAAAAGCAGGCTCAAAACGGAAAAAGT
CATATACTTCAAAGAAATCCTCTAAACAGTCCCGGAAATCTCCAGGAGATGAAGATGACAAAGACTGCAAAGAAG
AGGAAAACAAAAGCAGCTCTGAGGGTGGAGATGCGGGCAACGACACAAGAAACACAACTTCAGACTTGCAGAAAA
CCAGTGAAGGGACC**TAA**CTACCATAATGAATGCTGCATATTAAGAGAAACCACAAGAAGGTTATATGTTTGGTTG
TCTAATATTCTTGGATTTGATATGAACCAACACATAGTCCTTGTTGTCATTGACAGAACCCCAGTTTGTATGTAC
ATTATTCATATTCCTCTCTGTTGTGTTTCGGGGGGAAAAGACATTTTAGCCTTTTTTAAAAGTTACTGATTTAAT
TTCATGTTATTTGGTTGCATGAAGTTGCCCTTAACCACTAAGGATTATCAAGATTTTTGCGCAGACTTATACATG
TCTAGGATCCTTTTATCAAGGCAGTTATGATCATCGTTTTCCTGCCTTGACCCCACCATCATCAAACACTCAGTT
AAATATAAATTAACATTTTTTAGATGACCACTCAACATAATGCTTAAGAATGGAATTTCCTCTCTGTGACAGAAC
CCAGGAATTAATTCCTAAATACATAACGTTGGTATATTGAAGACGAAATTAAAATTGTCCTTCAGTTTTGAGGCC
ATGTGTAAAGTTTAACCATATTGTAAAATATCTATTCCGTATTAGAAATAGCTAGTTGACAGCTTATACTTCTCA
AAATTCATATTGTTATGTACACAAACTAAGTTTCTATATGTGAAGTTAGTGAGTCTTTTTGTGTTACTCCAAAAT
AAAGGCAATGATTTATTTTTTTCCCAGTGCCAATACAATTTTGAGCTAAGCACTCAAGGTGGATACTTTACATTT
TAAAGCTGGAATCAGCAACAGCCCTATGGGAAACCAGACAAAGCATTGACTTTTAAATGTAGACTTTTAAAATAA
ACTGTTTTCTTTTGGAACTACAATTAGAATAGTTAATATTCATCCTTAAACCATTATTATGTGTACATTATTGTT
GCTATTGTGATAATAGAGAATTTTATTTATTTTTATGCCAGCTTATATTGTGAGAACACATTTAGTCAGTTTGGG
TTTTATCAATCCTGTTAATGCTTGTCCTTGGAACATCTTTCGCGTATTCACGGTTTGTAGTTGAAAAGTTTACTG
TAAAAAAATCAAAAACAAAAAAATGTATTGTTTTTACAGAATAAATTTATTGGGATGTGTACTGGGAGTAAGATT
TGAGGTTGTAAGCAAACTAAGTTAGTGTAATTTGGCTTCATATATGTAACGTGAGGTATTAATGTAATTCATATA
TTAAAGCAAAAATTGTTCGCAGC

FIGURE 1470

MARPRPREYKAGDLVFAKMKGYPHWPARIDELPEGAVKPPANKYPIFFFGTHETAFLGPKDLFPYKEYKDKFGKS
NKRKGFNEGLWEIENNPGVKFTGYQAIQQQSSSETEGEGGNTADASSEEEGDRVEEDGKGKRKNEKAGSKRKKSY
TSKKSSKQSRKSPGDEDDKDCKEEENKSSSEGGDAGNDTRNTTSDLQKTSEGT

FIGURE 1471A

GCGGCCGCTCCCCCGGAGCGGCTAAAGCGGCGGCGACCGAGGCGAGCAATGGGCACGGCAGTCTCGGCAGAGCAC
AGGCGCTTCACCGCGGCTGCTCGGGCTCCGCGCTGACCTGCCCGGGCGGCCGCCTATTGTCTTTCTCCGCGGCGA
AGGTGAAGAGTTGTCCCAGCTCGGCCCGCGGGGGAGCCCCGGGAGCCGCACGTGTCCTGGGTC**ATG**AAACTTAAT
CCACAGCAAGCTCCCTTATATGGTGATTGTGTTGTTACAGTGCTGCTTGCTGAAGAGGACAAAGCTGAAGATGAT
GTAGTGTTTTACTTGGTATTTTTGGGTTCCACCCTCCGTCACTGTACAAGTACTCGGAAGGTCAGTTCTGATACA
TTGGAGACCATTGCTCCTGGTCATGATTGTTGTGAAACAGTGAAGGTGCAGCTCTGTGCTTCCAAAGAGGGCCTT
CCCGTGTTTGTGGTGGCTGAAGAAGACTTTCATTTCGTCCAGGATGAAGCGTATGATGCAGCTCAATTCCTAGCA
ACCAGTGCTGGAAATCAGCAGGCTTTGAACTTTACCCGTTTTCTTGACCAGTCAGGACCCCCATCTGGGGATGTG
AATTCCCTTGATAAGAAGTTGGTGCTGGCATTCAGGCACCTGAAGCTGCCCACGGAGTGGAATGTATTGGGGACA
GATCAGAGTTTGCATGATGCTGGCCCGCGAGÀGACATTGATGCATTTTGCTGTGCGGCTGGGACTGCTGAGGTTG
ACGTGGTTCCTGTTGCAGAAGCCAGGTGGCCGCGGGAGCTCTCAGTATCCACAACCAGGAAGGGGCGACGCCTGTG
AGCTTGGCCTTGGAGCGAGGCTATCACAAGCTGCACCAGCTTCTAACCGAGGAGAATGCTGGAGAACCAGACTCC
TGGAGCAGTTTATCCTATGAAATACCGTATGGAGACTGTTCTGTGAGGCATCATCGAGAGTTGGACATCTATACA
TTAACCTCTGAGTCTGATTCACATCATGAACACCCATTTCCTGGAGACGGTTGCACTGGACCAATTTTTAAACTT
ATGAACATCCAACAGCAACTAATGAAAACAAACCTCAAGCAGATGGACAGTCTTATGCCCTTAATGATGACAGCA
CAGGATCCTTCCAGTGCCCCAGAGACAGATGGCCAGTTTCTTCCCTGTGCACCGGAGCCCACGGACCCTCAGCGA
CTTTCTTCTTCTGAAGAGACTGAGAGCACTCAGTGCTGCCCAGGGAGCCCTGTTGCACGACTGAAAGTCCCTGT
GATTTGTCAAGCATAGTTGAGGAGGAGAATACAGACCGTTCCTGTAGGAAGAAAAATAAAGGCGTGGAAAGAAAA
GGGGAAGAGGTGGAGCCAGCACCTATTGTGGACTCTGGAACTGTATCTGATCAAGACAGCTGCCTTCAGAGCTTG
CCTGATTGTGGAGTAAAGGGCACGGAAGGCCTTTCGTCCTGTGGAAACAGAAATGAAGAAACTGGAACAAAATCT
TCTGGAATGCCCACAGACCAGGAGTCCCTGAGCAGTGGAGATGCTGTGCTTCAGAGAGACTTGGTCATGGAGCCA
GGCACAGCCCAGTATTCCTCTGGAGGTGAACTGGGAGGCATTTCAACAACAAATGTCAGTACCCCAGACACTGCA
GGGGAAATGGAACATGGGCTCATGAACCCAGATGCCACTGTTTGGAAGAATGTGCTTCAGGGAGGGGAAAGTACA
AAGGAAAGATTTGAGAACTCTAATATTGGCACAGCTGGAGCCTCTGACGTGCACGTCACAAGTAAGCCTGTGGAT
AAAATCAGTGTTCCAAACTGTGCCCCTGCTGCCAGTTCCCTGGATGGTAACAAACCTGCTGAGTCTTCACTTGCA
TTTAGTAATGAAGAAACCTCCACTGAAAAAAACAGCAGAAACGGAAACTTCACGAAGTCGTGAGGAGAGTGCTGAT
GCTCCAGTAGATCAGAATTCTGTGGTGATTCCAGCTGCTGCAAAAGACAAGATTTCAGATGGATTAGAACCTTAT
ACTCTCTTAGCAGCAGGCATAGGTGAGGCAATGTCACCCTCAGATTTAGCCCTTCTTGGGCTGGAAGAAGATGTA
ATGCCACACCAGAACTCAGAAACAAATTCATCTCATGCTCAAAGCCAAAAGGGCAAATCCTCACCCATTTGTTCT
ACAACTGGAGACGATAAACTTTGTGCAGACTCTGCATGTCAACAGAACACAGTGACTTCTAGTGGCGATTTGGTT
GCAAAACTGTGTGATAACATAGTTAGCGAGTCCGAAAGCACCACAGCAAGGCAACCCAGCTCACAAGATCCACCC
GATGCCTCCCACTGTGAAGACCCACAGGCTCATACAGTCACCTCTGACCCTGTAAGGGATACCCAGGAACGTGCG
GATTTTTGTCCTTTCAAAGTGGTGGATAACAAAGGCCAACGAAAGATGTGAAACTAGATAAACCTTTAACAAAT
ATGCTTGAGGTGGTTTCACATCCACATCCAGTTGTCCCTAAAATGGAGAAAGAACTGGTGCCAGACCAGGCAGTA
ATATCAGACAGTACTTTCTCTCTGGCAAACAGTCCAGGCAGTGAATCAGTAACCAAGGATGACGCACTTTCTTTT
GTCCCCTCCCAGAAAGAAAAGGGAACAGCAACTCCTGAACTACATACAGCTACAGATTATAGAGATGGCCCAGAT
GGAAATTCGAATGAGCCTGATACGCGGCCACTAGAAGACAGGGCAGTAGGCCTGTCCACATCCTCCACTGCTGCA
GAGCTTCAGCACGGGATGGGGAATACCAGTCTCACAGGACTTGGTGGAGAGCATGAGGGTCCCGCCCCTCCAGCA
ATCCCAGAAGCTCTGAATATCAAGGGGAACACTGACTCTTCCCTGCAAAGTGTGGGTAAGGCCACTTTGGCTTTA
GATTCAGTTTTGACTGAAGAAGGAAAACTTCTGGTGGTTTCAGAAAGCTCTGCAGCTCAGGAACAAGATAAGGAT
AAAGCGGTGACCTGTTCCTCTATTAAGGAAATGCTCTCTCTTCAGGAACTTTGCAGGAAGAGCAGAGAACACCA
CCTCCTGGACAAGATACTCAACAATTTCATGAAAAATCAATCTCAGCTGACTGTGCCAAGGACAAAGCACTTCAG
CTAAGTAATTCACCGGGTGCATCCTCTGCCTTTCTTAAGGCAGAAACTGAACATAACAAGGAAGTGGCCCCACAA
GTCTCACTGCTGACTCAAGGTGGGGCTGCCCAGAGCCTGGTGCCACCAGGAGCAAGTCTGGCCACAGAGTCAAGG
CAGGAAGCCTTGGGGGCAGAGCACAACAGCTCCGCTCTGTTGCCATGTCTGTTGCCAGATGGGTCTGATGGGTCC
GATGCTCTTAACTGCAGTCAGCCTTCTCCTCTGGATGTTGGAGTGAAGAACACTCAATCCCAGGGAAAAACTAGT
GCCTGTGAGGTGAGTGGAGATGTGACGGTGGATGTTACAGGGGTTAATGCTCTACAAGGTATGGCTGAGCCCAGA
AGAGAGAATATATCACACAACACCCAAGACATCCTGATTCCAAACGTCTTGTTGAGCCAAGAGAAGAATGCCGTT

FIGURE 1471B

```
CTAGGTTTGCCAGTGGCTCTACAGGACAAAGCTGTGACTGACCCACAGGGAGTTGGAACCCCAGAGATGATACCT
CTTGATTGGGAGAAAGGGAAGCTGGAGGGAGCAGACCACAGCTGTACCATGGGTGACGCTGAGGAAGCCCAAATA
GACGATGAAGCACATCCTGTCCTACTGCAGCCTGTTGCCAAGGAGCTCCCCACAGACATGGAGCTCTCAGCCCAT
GATGATGGGGCCCCAGCTGGTGTGAGGGAAGTCATGCGAGCCCCGCCTTCAGGCAGGGAAAGGAGCACTCCCTCT
CTACCTTGCATGGTCTCTGCCCAGGACGCACCTCTGCCTAAGGGGGCAGACTTGATAGAGGAGGCTGCCAGCCGT
ATAGTGGATGCTGTCATCGAACAAGTCAAGGCCGCTGGAGCACTGCTTACTGAGGGGGAGGCCTGTCACATGTCA
CTGTCCAGCCCTGAGTTGGGTCCTCTCACTAAAGGACTAGAGAGTGCTTTTACAGAAAAAGTGAGTACTTTCCCA
CCTGGGGAGAGCCTACCAATGGGCAGTACTCCTGAGGAAGCCACGGGGAGCCTTGCAGGATGTTTTGCTGGAAGG
GAGGAGCCAGAGAAGATCATTTTACCTGTCCAGGGGCCTGAGCCAGCAGCAGAAATGCCAGACGTGAAAGCTGAA
GATGAAGTGGATTTTAGAGCAAGTTCAATTTCTGAAGAAGTGGCTGTAGGGAGCATAGCTGCTACACTGAAGATG
AAGCAAGGCCCAATGACCCAGGCGATAAACCGAGAAAACTGGTGTACAATAGAGCCATGCCCTGATGCAGCATCT
CTTCTGGCTTCCAAGCAGAGCCCAGAATGTGAGAACTTCCTGGATGTTGGACTGGGCAGAGAGTGTACCTCAAAA
CAAGGTGTACTTAAAAGAGAATCTGGGAGTGATTCTGACCTCTTTCACTCACCCAGTGATGACATGGACAGCATC
ATCTTCCCAAAGCCAGAGGAAGAGCATTTGGCCTGTGATATCACCGGATCCAGTTCATCCACCGATGACACGGCT
TCACTGGACCGACATTCTTCTCATGGCAGTGATGTGTCTCTCTCCCAGATTTTAAAGCCAAACAGGTCAAGAGAT
CGGCAAAGCCTTGATGGATTCTACAGCCATGGGATGGGAGCTGAGGGTCGAGAAAGTGAGAGTGAGCCTGCTGAC
CCAGGCGACGTGGAGGAGGAGGAGATGGACAGTATCACTGAAGTGCCTGCAAACTGCTCTGTCCTAAGGAGCTCC
ATGCGCTCTCTTTCTCCCTTCCGGAGGCACAGCTGGGGGCCTGGGAAAAATGCAGCCAGCGATGCAGAAATGAAC
CACCGGAGTTCAATGCGAGTTCTTGGGGATGTTGTCAGGAGACCTCCCATTCATAGGAGAAGTTTCAGTCTAGAA
GGCTTGACAGGAGGAGCTGGTGTCGGAAACAAGCCATCCTCATCTCTAGAAGTAAGCTCTGCAAATGCCGAAGAG
CTCAGACACCCATTCAGTGGTGAGGAACGGGTTGACTCTTTGGTGTCACTTTCAGAAGAGGATCTGGAGTCAGAC
CAGAGAGAACATAGGATGTTTGATCAGCAGATATGTCACAGATCTAAGCAGCAGGGATTTAATTACTGTACATCA
GCCATTTCCTCTCCATTGACAAAATCCATCTCATTAATGACAATCAGCCATCCTGGATTGGACAATTCACGGCCC
TTCCACAGTACCTTCCACAATACCAGTGCTAATCTGACTGAGAGTATAACAGAAGAGAACTATAATTTCCTGCCA
CATAGCCCCTCCAAGAAAGATTCTGAATGGAAGAGTGGAACAAAAGTCAGTCGTACATTCAGCTACATCAAGAAT
AAAATGTCTAGCAGCAAGAAGAGCAAAGAAAAGGAAAAGAAAAAGATAAGATTAAGGAGAAGGAGAAAGATTCT
AAAGACAAGGAGAAAGATAAGAAGACTGTCAACGGGCACACTTTCAGTTCCATTCCTGTTGTGGGTCCCATCAGC
TGTAGCCAGTGTATGAAGCCCTTCACCAACAAAGATGCCTATACTTGTGCAAATTGCAGTGCTTTTGTCCACAAA
GGCTGCCGAGAAAGTCTAGCCTCCTGTGCAAAGGTCAAAATGAAGCAGCCCAAAGGGAGCCTTCAGGCACATGAC
ACATCATCACTGCCCACGGTCATTATGAGAAACAAGCCCTCACAGCCCAAGGAGCGTCCTCGGTCCGCAGTCCTC
CTGGTGGATGAAACCGCTACCACCCCAATATTTGCCAATAGACGATCCCAGCAGAGTGTCTCGCTCTCCAAAAGT
GTCTCCATACAGAACATTACTGGAGTTGGCAATGATGAGAACATGTCAAACACCTGGAAATTCCTGTCTCATTCA
ACAGACTCACTAAATAAAATCAGCAAGGTCAATGAGTCAACAGAATCACTTACTGATGAGGGAGTAGGTACAGAC
ATGAATGAAGGACAACTACTGGGAGACTTTGAGATTGAGTCCAAACAGCTGGAAGCAGAGTCTTGGAGTCGGATA
ATAGACAGCAAGTTTCTAAAACAGCAAAAGAAAGATGTGGTCAAACGGCAAGAAGTAATATATGAGTTGATGCAG
ACAGAGTTTCATCATGTCCGCACTCTCAAGATCATGAGTGGTGTGTACAGCCAGGGGATGATGGCGGATCTGCTT
TTTGAGCAGCAGATGGTAGAAAAGCTGTTCCCCTGTTTGGATGAGCTGATCAGTATCCATAGCCAATTCTTCCAG
AGGATTCTGGAGCGGAAGAAGGAGTCTCTGGTGGATAAAAGTGAAAAGAACTTTCTCATCAAGAGGATAGGGGAT
GTGCTTGTAAATCAGTTTTCAGGTGAGAATGCAGAACGTTTAAAGAAGACATATGGCAAGTTTTGTGGGCAACAT
AACCAGTCTGTAAACTACTTCAAAGACCTTTATGCCAAGGATAAGCGTTTTCAAGCCTTTGTAAAGAAGAAGATG
AGCAGTTCAGTTGTTAGAAGGCTTGGAATTCCAGAGTGCATATTGCTTGTAACTCAGCGGATTACCAAGTACCCA
GTTTTATTCCAAAGAATATTGCAGTGTACCAAAGACAATGAAGTGGAGCAGGAAGATCTAGCACAGTCCTTGAGC
CTGGTGAAGGATGTGATTGGAGCTGTAGACAGCAAAGTGGCAAGTTATGAAAAGAAAGTGCGTCTCAATGAGATT
TATACAAAGACAGATAGCAAGTCAATCATGAGGATGAAGAGTGGTCAGATGTTTGCCAAGGAAGATTTGAAACGG
AAGAAGCTTGTACGTGATGGGAGTGTGTTCTGAAGAATGCAGCAGGAAGGTTGAAAGAGGTTCAAGCAGTTCTT
CTCACTGACATTTTAGTTTTCCTTCAAGAAAAAGACCAGAAGTACATCTTTGCATCATTGGACCAGAAGTCAACA
GTGATCTCTTTAAAGAAGCTGATTGTGAGAGAAGTGGCACATGAGGAGAAAGGTTTATTCCTGATCAGCATGGGG
ATGACAGATCCAGAGATGGTAGAAGTCCATGCCAGCTCCAAAGAGGAACGAAACAGCTGGATTCAGATCATTCAG
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FIGURE 1471C

```
GACACAATCAACACCCTGAACAGAGATGAAGATGAAGGAATTCCTAGTGAGAATGAGGAAGAAAAGAAAATGTTG
GACACCAGAGCCCGAGAATTAAAAGAACAACTTCACCAGAAGGACCAAAAAATCCTACTCTTGTTGGAAGAGAAG
GAGATGATTTTCCGGGACATGGCTGAGTGCAGCACCCCTCTCCCAGAGGATTGCTCCCCAACACATAGCCCTAGA
GTTCTCTTCCGCTCCAACACAGAAGAGGCTCTCAAAGGAGGACCTTTAATGAAAAGTGCAATAAATGAGGTGGAG
ATCCTTCAGGGTTTGGTGAGTGGAAATCTGGGAGGCACACTTGGGCCGACTGTCAGCAGCCCCATTGAGCAAGAT
GTGGTCGGTCCCGTTTCCCTGCCCCGGAGAGCAGAGACCTTTGGAGGATTTGACAGCCATCAGATGAATGCTTCA
AAAGGAGGCGAGAAGGAAGAGGGAGATGATGGCCAAGATCTTAGGAGAACGGAATCAGATAGTGGCCTAAAAAAG
GGTGGAAATGCTAACCTGGTATTTATGCTTAAAAGAAACAGTGAGCAGGTTGTCCAGAGCGTTGTTCATCTCTAC
GAGCTCCTCAGCGCTCTGCAGGGTGTGGTGCTGCAGCAGGACAGCTACATTGAGGACCAGAAACTGGTGCTGAGC
GAGAGGGCGCTCACTCGCAGCTTGTCCCGCCCGAGCTCCCTCATTGAGCAGGAGAAGCAGCGCAGCCTGGAGAAG
CAGCGCCAGGACCTGGCCAACCTGCAGAAGCAGCAGGCCCAGTACCTCGAGGAGAAGCGCAGGCGCGAGCGTGAG
TGGGAAGCTCGTGAGAGGGAGCTGCGGGAGCGGGAGGCCCTCCTGGCCCAGCGCGAGGAGGAGGTGCAGCAGGGG
CAGCAGGACCTGGAAAAGGAGCGGGAGGAGCTCCAGCAGAAGAAGGGCACATACCAGTATGACCTGGAGCGACTG
CGTGCTGCCCAGAAACAGCTTGAGAGGGAACAGGAGCAGCTGCGCCGGGAGGCAGAGCGGCTCAGCCAGCGGCAG
ACAGAACGGGACCTGTGTCAGGTTTCCCATCCACATACCAAGCTGATGAGGATCCCATCGTTCTTCCCCAGTCCT
GAGGAGCCCCCCTCGCCATCTGCACCTTCCATAGCCAAATCAGGGTCATTGGACTCAGAACTTTCAGTGTCCCCA
AAAAGGAACAGCATCTCTCGGACACACAAAGATAAGGGGCCTTTTCACATACTGAGTTCAACCAGCCAGACAAAC
AAAGGACCAGAAGGGCAGAGCCAGGCCCCTGCGTCCACCTCTGCCTCTACCCGCCTGTTTGGGTTAACAAAGCCA
AAGGAAAAGAAGGAGAAAAAAAAGAAGAACAAAACCAGCCGCTCTCAGCCCGGTGATGGTCCCGCGTCAGAAGTA
TCAGCAGAGGGTGAAGAGATCTTCTGCTGACCCTCTTCCTCTCTGCTGAGGCAGCTGCCTCCTGATCCTGGCCAG
CCCACCTCTCCTGCTGTCCCCGCGTGCACAAGTCTCTTACACTGGACGCCCACTGCTCCTCAGCGTCCAGTCCTC
CTGGGCGGCCCCAGGTCCTGGACAATAAGCAACAGATGATATTGAGTGTCGGGTGGGGAAGGAGGCCCAGACTCT
GCTTCGGCCATGATTTGTGACTGCCCAGGACTCTCAGGTTGGGCTGGCCCTACTCAGGATTACACTGAAAGTAAT
GGCCTCGTAAGTACAGGTGATGGTTTTGGACACGTCAGGAATTCCTAAAGGCTGAAAGAGTGTATCCAAGTAAGG
TCTGAACCTCCGACTGCCTTTTATTTGGGGGAACACAAAACCAAACAGCAGATGTTTTGGACTTGATCTGTGTAC
GTACATGGGGACCTGTCTGCATATACACACGGGGAATGCCAGAAGAAGGCCCAGTCTGCACCAGGCGTCTGGTCA
ACTTAGCACAAGGGCAGTGCCTGGACGGACCCGGAGCCCCCGCATATCAGCAGTTCACCCAGTACTCCTCAGAGA
CTGGTTTCCCTCTAAACCCATCCCGGGCACATACCACCCCTGTTTTGCATGTATTTCTCATTTCATTTTAGGGAT
GACAAACATTTGTGAAACCAGTGAGAGAAGGCTTGATGTGTATAAAAGACGTGATGTGCACCACCTCGATCTCGG
TGTTTCAGGCACTAAAGCAACAAAACAACCCATAGTATCTCATTTTGTCATCAGATCCAGAAGAAATATCCTGGT
TTTCCAGCATGTTTACCCACATGTTTGGGCATGGATAAAGTGAAGAGGCCTACTCACCATTATCCCTGCAGCGT
GACACCTTTTGATTGTCACTGACCACTCAGAAGGGGCCACGGCCTCCTGGCTGTGTTCCTGAGCCCCCGTCGTGC
CTCTCCCAGACAGCAGCTGTCTGGCCCTTGCTGGGTGAGGGCACACCACTGCCAGGGGTCAGCCTCGCACCCAGG
CCAGGCAGAAGCTGTGCTCTGAAGCTAGGACAGCTGGCTGAGAAGTGGGTTCAGGCGAAGGGTGAAGCCATGTGT
AGCAGTTCCTGCCAGTGCAGATCTGGAGAGGAGCTGGCCCGGAAGGCGTGGTTGTGAAAGCGCCCTTCTTATGTT
AGGAGGCCTTGGCAAAATTGGATTTCTTCAAAAATACATGTAAAGGTCTGTTGTTGAATTGTACTCTGCCCCTGG
AAGCAGATACAGATGGCTGCCTGCTGCTCGGCTTTGCTTTTGCTTTTCCCACCGTGTTTTCATCTTTGTTCACTT
GAGGCTTTCCCCAGCTGGTGTGTGCAGGACAGTTCATGGTAATGTTGCCCTCTGAGGCCCCGTACACCAGAAGGG
AGGCCCTGGAAAATTTTGTGCTTCCAACGTGGCCTTCAATTCTTGCTTTTTTGCCCCTCGGAAGCATGGGGCTTT
TGAGCACACTTAAAAAAAAAAAACCGGAATTC
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FIGURE 1472

MKLNPQQAPLYGDCVVTVLLAEEDKAEDDVVFYLVFLGSTLRHCTSTRKVSSDTLETIAPGHDCCETVKVQLCAS
KEGLPVFVVAEEDFHFVQDEAYDAAQFLATSAGNQQALNFTRFLDQSGPPSGDVNSLDKKLVLAFRHLKLPTEWN
VLGTDQSLHDAGPRETLMHFAVRLGLLRLTWFLLQKPGGRRALSIHNQEGATPVSLALERGYHKLHQLLTEENAG
EPDSWSSLSYEIPYGDCSVRHHRELDIYTLTSESDSHHEHPFPGDGCTGPIFKLMNIQQQLMKTNLKQMDSLMPL
MMTAQDPSSAPETDGQFLPCAPEPTDPQRLSSSEETESTQCCPGSPVAQTESPRDLSSIVEEENTDRSCRKKNKG
VERKGEEVEPAPIVDSGTVSDQDSCLQSLPDCGVKGTEGLSSCGNRNEETGTKSSGMPTDQESLSSGDAVLQRDL
VMEPGTAQYSSGGELGGISTTNVSTPDTAGEMEHGLMNPDATVWKNVLQGGESTKERFENSNIGTAGASDVHVTS
KPVDKISVPNCAPAASSLDGNKPAESSLAFSNEETSTEKTAETETSRSCEESADAPVDQNSVVIPAAAKDKISDG
LEPYTLLAVGIGETMSPPDLALLGLEEDVMPHQNSETNSSHAQSQKGKSSPICSTTGDDKLCADSACQQNTVTSS
GDLVAKLCDNIVSESESTTARQPSSQDPPDASHCEDPQAHTVTSDPVRDTQERADFCPFKVVDNKGQRKDVKLDK
PLTNMLEVVSHPHPVVPKMEKELVPDQAVISDSTFSLANSPGSESVTKDDALSFVPSQKEKGTATPELHTATDYR
DGPDGNSNEPDTRPLEDRAVGLSTSSTAAELQHGMGNTSLTGLGGEHEGPAPPAIPEALNIKGNTDSSLQSVGKA
TLALDSVLTEEGKLLVVSESSAAQEQDKDKAVTCSSIKENALSSGTLQEEQRTPPPGQDTQQFHEKSISADCAKD
KALQLSNSPGASSAFLKAETEHNKEVAPQVSLLTQGGAAQSLVPPGASLATESRQEALGAEHNSSALLPCLLPDG
SDGSDALNCSQPSPLDVGVKNTQSQGKTSACEVSGDVTVDVTGVNALQGMAEPRRENISHNTQDILIPNVLLSQE
KNAVLGLPVALQDKAVTDPQGVGTPEMIPLDWEKGKLEGADHSCTMGDAEEAQIDDEAHPVLLQPVAKELPTDME
LSAHDDGAPAGVREVMRAPPSGRERSTPSLPCMVSAQDAPLPKGADLIEEAASRIVDAVIEQVKAAGALLTEGEA
CHMSLSSPELGPLTKGLESAFTEKVSTFPPGESLPMGSTPEEATGSLAGCFAGREEPEKIILPVQGPEPAAEMPD
VKAEDEVDFRASSISEEVAVGSIAATLKMKQGPMTQAINRENWCTIEPCPDAASLLASKQSPECENFLDVGLGRE
CTSKQGVLKRESGSDSDLFHSPSDDMDSIIFPKPEEEHLACDITGSSSSTDDTASLDRHSSHGSDVSLSQILKPN
RSRDRQSLDGFYSHGMGAEGRESESEPADPGDVEEEEMDSITEVPANCSVLRSSMRSLSPFRRHSWGPGKNAASD
AEMNHRSSMRVLGDVVRRPPIHRRSFSLEGLTGGAGVGNKPSSSLEVSSANAEELRHPFSGEERVDSLVSLSEED
LESDQREHRMFDQQICHRSKQQGFNYCTSAISSPLTKSISLMTISHPGLDNSRPFHSTFHNTSANLTESITEENY
NFLPHSPSKKDSEWKSGTKVSRTFSYIKNKMSSSKKSKEKEKEKDKIKEKEKDSKDKEKDKKTVNGHTFSSIPVV
GPISCSQCMKPFTNKDAYTCANCSAFVHKGCRESLASCAKVKMKQPKGSLQAHDTSSLPTVIMRNKPSQPKERPR
SAVLLVDETATTPIFANRRSQQSVSLSKSVSIQNITGVGNDENMSNTWKFLSHSTDSLNKISKVNESTESLTDEG
VGTDMNEGQLLGDFEIESKQLEAESWSRIIDSKFLKQQKKDVVKRQEVIY

FIGURE 1473A

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CTGCGGTCCAGTCTAGGGGGTCTCAGATTGGCGGGGATGGGCAGCAGCGGCAGGTGGCCTTGGCTTTTGCTGCAG
CCGTCAACGACCTATCATCGGGGTCCTGCGTAAGGTCCGGCTGGCTGGGACTTGGCTGTGGGTGGGATGGACTGG
CTGCCGGACCGAGTGCCCTGCAGTTGGTAGGAGTATGAGGCAGAGTGATGCACACCCGGGCGCCCAGCATCGTTC
TAATTGCCGGAGACATTGCCTCAGACTGTGCGCTGCTAGAGGCTGCGTTCCTGAGCAGGAAGCCCGTTTCCTGGG
ATTGGAACTACCCTTCTTGGCCAGCGGGAAGTCCCCAAGGACGGAGTCGAAAGGTCAAATCTTATCTGTCAGTGC
TGTGTGACAGCATCGCAACGGGATCTGCAGAACCTGAACTCGATCCGTAATGCCTCCTGCCTGCCTCTTTCAAG**A**
**TG**GAGGTGAAACCTGTGGGAGAACCTACTCAAGAGGTGTCTAAATTCAAACTTTCCACCAAGGTAGAAAGCACGG
GACACTGGCTGGTGGAAGATCATGTTCGAATATGGGAAGTTTTAAAGACAGAGGAGAGCTCGATTCAGGACTGGG
GTGAAGAGGTAGAGGAAGGAGCTGTTTACCATGTCACCCTCAAAAGAGTCCAGATTCAACAGGCTGCCAATAAAG
GAGCAAGATGGCTAGGGGTTGAAGGGGACCAGCTGCCTCCAGGACACACAGTCAGTCAATATGAAACCTGTAAGA
TCAGGACCATAAAAGCTGGCACCTTGGAGAAGCTTGTGGAGAACCTGCTGACAGCTTTTGGGGACAATGACTTTA
CCTATATCAGCATCTTTCTTTCAACGTACAGAGGCTTTGCCTCCACTAAAGAAGTGCTGGAACTACTGCTGGACA
GGTATGGAAACCTGACAAGCCCAAACTGTGAAGAAGATGGAAGCCAAAGTTCATCAGAGTCCAAAATGGTGATCA
GGAATGCAATCGCTTCCATACTAAGGGCCTGGCTTGACCAGTGTGCAGAAGACTTCCGAGAGCCCCCTCACTTCC
CTTGCTTACAGAAACTGCTGGATTATCTCACACGGATGATGCCGGGCTCTGACCCAGAAAGAAGAGCACAAAATC
TTCTTGAGCAGTTTCAGAAGCAAGAAGTGGAAACTGACAATGGGCTTCCCAACACGATCTCCTTCAGCCTGGAAG
AGGAAGAGGAACTGGAGGGTGGAGAGTCAGCAGAATTCACGTGCTTCTCAGAAGATCTCGTGGCAGAGCAGCTGA
CCTACATGGATGCACAACTCTTCAAGAAAGTAGTGCCTCACCACTGCCTGGGCTGCATTTGGTCTCGAAGGGATA
AGAAGGAAAACAAACATTTGGCTCCTACGATCCGTGCCACCATCTCTCAGTTTAATACCCTCACCAAATGTGTTG
TCAGCACCATCCTGGGGGGCAAAGAACTCAAAACTCAGCAGAGAGCCAAAATCATTGAGAAGTGGATCAACATCG
CTCATGAATGTAGACTCCTGAAGAATTTTTCCTCCTTGAGGGCCATCGTTTCGGCACTGCAGTCTAATTCCATCT
ATCGGTTAAAAAAGACTTGGGCTGCCGTCCCAAGGGACCGAATGCTGATGTTTGAAGAACTTTCAGATATCTTCT
CAGACCATAATAACCATTTGACCAGCCGAGAACTACTGATGAAGGAAGGAACCTCAAAATTTGCAAACCTGGACA
GCAGTGTGAAAGAAAACCAGAAGCGTACCCAGAGGCGGCTGCAGCTCCAGAAGGACATGGGTGTGATGCAGGGAA
CTGTGCCCTACCTGGGCACCTTCCTGACTGACCTGACCATGCTTGACACTGCCCTTCAGGACTACATCGAGGGTG
GACTGATAAACTTTGAGAAAAGGAGAAGGGAATTTGAAGTGATTGCCCAGATAAAGCTCTTACAGTCTGCCTGCA
ACAGCTATTGCATGACCCCAGACCAAAAGTTCATCCAGTGGTTCCAGAGGCAGCAGCTCCTGACAGAGGAGGAGA
GCTATGCCCTGTCATGTGAGATTGAAGCAGCTGCTGACGCCAGCACCACCTCGCCCAAGCCTCGGAAGAGCATGG
TGAAGAGACTCAGCCTACTGTTTCTAGGGTCTGACATGATCACCAGTCCCACTCCCACCAAAGAGCAGCCCAAGT
CCACTGCCAGCGGGAGCTCTGGTGAAAGCATGGACTCTGTCAGCGTGTCATCCTGCGAGTCGAACCACTCAGAGG
CTGAGGAGGGCTCCATTACTCCCATGGACACCCCTGATGAGCCTCAAAAAAAGCTCTCTGAGTCCTCCTCATCCT
GTTCTTCTATCCATTCCATGGACACAAATTCCTCAGGGATGTCTTCCTTAATCAACCCCCTCTCCTCCCCTCCGT
CCTGCAACAACAACCCCAAAATCCACAAGCGCTCTGTCTCGGTGACGTCCATTACCTCGACTGTGCTGCCTCCTG
TTTACAACCAACAGAATGAAGACACCTGCATAATCCGCATCAGTGTGGAAGACAATAACGGCAACATGTACAAGA
GCATCATGTTGACGAGCCAGGATAAAACCCCGCTGTGATCCAGAGAGCCATGCTGAAGCACAATCTGGACTCAG
ACCCCGCCGAGGAGTACGAGCTGGTGCAGGTCATCTCGGAGGACAAAGAACTTGTGATTCCAGACTCAGCAAATG
TCTTTTATGCCATGAACAGCCAAGTGAACTTTGACTTCATTTTGCGCAAAAAGAACTCCATGGAAGAACAAGTGA
AACTGCGTAGCCGGACCAGCTTGACGTTGCCCAGGACAGCTAAACGGGGCTGCTGGAGTTACAGACACAGCAAAA
TCACCCTC**TGA**AGGGAGGGMCCAGTGGCCCCTTGTTTGCCAAAGGCAGAGTGGGGCTGAGAAACAGGCTGCGGTG
ATTGCAATTACCATCCGGTGTTCGAGGATCATTGGTGAAGTCAGCAGATATTTATTGAGTTCCTGTGGTGTGCAA
AGCATTATGATAGGCACCGTGGGGAAACTGGAAATGAATTTGACATGAAAAGGATGAACGATTCACTGATTCTCT
TTGACTCATTTGAGACTAAAATGCAGAATTACCAACATTTAAAACATATATATGCACATGTATTTGGTATGCATG
TGTATCTATATAAAAATATATAAGAGGGACTTTATGGGATAGTATGGACTATGGAAAAACAAATTTGCACAATGG
CCTGGGAAGTTGAGGTCACTTTTTACAGGGAAATAGAAGAAACTGAGAACCTAGTCTCGTATATTCTGAGTAAAT
GGAATCAGTCCTGGGAATAGAGAGTGTCCTTTGTGCCAGTATTACAAGAAGCCCAAACTTTATTTTTATAAAGGG
AGAGGATGACTTTCTCAATCAAGTGCCACCAGATAAAAACAACTGCAGAGGCTGGAACTGCCACAGGCTGTATGA
AAGGCCACTTTGGAAAGGGTTTGGATGAGCTGGTGGCCTTCAACCTCTGCCTGCATCTGCCACTTTCTGCTACCC
TAGGGAGGCCAGGAGGAGCTTCGGAGGACCATCGCCCCACTGGTCTAGCCATCATGACACCTCTGGAGGTGTCAA
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FIGURE 1473B

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GCTCCTGAAACAAGCTCATTTCAGTTTCTGGCAACCCCGTGTATTTCCGTTTTCCCCCTAAAGAACATATCATAA
TCATTGCACAAATAACCATGTTCTTTGGTAATGAAGCCAGAAAAGAAAGCGCAAAAGAATGGTGACTCATTTGGA
CTCTTATCTGTCTTGGAATGTCACTGCTTCATTGCCTTCTCTGATTGCCTTTTGCATGTAAAACTATGTGTCTGG
AGTCTTTTGCCATCTGGATCTTAGTACCTCTTTATTATGTGCAATTTATTCCTCAGGTGTGGAAATTTCTACTGC
AATTGACTGACGTKTGATTATTTTGAGCTTGTGAAAGATTTCTGAACAGTGATTGTCCCGTTAATAGCCCCTCAG
AAGATGTTCCCTGCTGATAACAGCATCCTATTTTACTTACTTTTATAGCATTACTGTGCCTAGTCGTGGGGAAAG
AGATGGGGCTGTATAGATTATCTGAATCATTTGTCTAAGAGGTACATTCTTCCAGATGGAATCAATAACTTTTTT
TTTTCCAGGTTCCCGTGCTTGCTATCACAGTATCATTGTTAAGTGACACTTTTGTCTCTCATAACACCATCACAC
TCTTCCTTCCAAGTCTGAGCTGTGCTGGGGTTTGAACTAAAAGCCATATGTGGAATATTGACATGTGTAAGAAGC
ACTTTCAGAATGTTGTCCTTTTTAAGAAATGATTCTCAAAATACCAGTTTTTATTCCAAAAATTTAGAGAACAAA
CCCGGAATATGAAGTGCAGATTGTAACATGGAGCTATTTTTTTTCCTAATCCCATAATACAGCTCCTAAAAGTT
GTGTGGGATTTGCGTTGCATAAATAGCCATGTGAATTCCACAAGAAGCACCAGGGAAAGTTTAGAGATTTGCGGC
AATGGACCGAAGAACGGGCCAGGAAGTCCTCCAATTTCCTTTGGTCTTTCCAGGAGATTGGACTACACATTGTAA
AGACTGACTGGGTTTCAACTAGTCAAAAAGCACTTTCTTCTGTTTTCAATCCCTGTTCGATTTGTGCTTCTGTGC
TTGTAGGAGAGATGGCCAGGGTGGCAGCCCTCATGCAGGTTGAAGTATATGTAGCCTCAGCCTGATATTCTTGGT
GCGAAGGTAAAAAAAAAAAAAATAAATAAAACCATTGGCCTGGTTGAGGGCGTGACCACCAAGACATATATGTTG
TGCCCGTGTTCATCCTGTGTATTTATACTGTATATGTAGAGTCTAGATTTATATACTGCAATGTAAAATATATAT
ATATTTACCTTTTTTAAAGACAATGGAAATTCCAAGTAGCTAAAACTTAGCTTCATTTATTTAATGCCACTTTAA
ATGTCTTAAATTTGTTTCCTGGTGGACAGCCGGGTAATGCTTTTAGCTGCTCGCATGCTTGTCTTTCTGCATCTC
CATCATCTGTTTACCTTTTGGTTAAACTAATAAACTAGTTTGGGACTTGGCTGGCATGTGCTGCCAGACCCAAAG
GGAAAAAAAAA
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FIGURE 1474

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MEVKPVGEPTQEVSKFKLSTKVESTGHWLVEDHVRIWEVLKTEESSIQDWGEEVEEGAVYHVTLKRVQIQQAANK
GARWLGVEGDQLPPGHTVSQYETCKIRTIKAGTLEKLVENLLTAFGDNDFTYISIFLSTYRGFASTKEVLELLLD
RYGNLTSPNCEEDGSQSSSESKMVIRNAIASILRAWLDQCAEDFREPPHFPCLQKLLDYLTRMMPGSDPERRAQN
LLEQFQKQEVETDNGLPNTISFSLEEEEELEGGESAEFTCFSEDLVAEQLTYMDAQLFKKVVPHHCLGCIWSRRD
KKENKHLAPTIRATISQFNTLTKCVVSTILGGKELKTQQRAKIIEKWINIAHECRLLKNFSSLRAIVSALQSNSI
YRLKKTWAAVPRDRMLMFEELSDIFSDHNNHLTSRELLMKEGTSKFANLDSSVKENQKRTQRRLQLQKDMGVMQG
TVPYLGTFLTDLTMLDTALQDYIEGGLINFEKRRREFEVIAQIKLLQSACNSYCMTPDQKFIQWFQRQQLLTEEE
SYALSCEIEAAADASTTSPKPRKSMVKRLSLLFLGSDMITSPTPTKEQPKSTASGSSGESMDSVSVSSCESNHSE
AEEGSITPMDTPDEPQKKLSESSSSCSSIHSMDTNSSGMSSLINPLSSPPSCNNNPKIHKRSVSVTSITSTVLPP
VYNQQNEDTCIIRISVEDNNGNMYKSIMLTSQDKTPAVIQRAMLKHNLDSDPAEEYELVQVISEDKELVIPDSAN
VFYAMNSQVNFDFILRKKNSMEEQVKLRSRTSLTLPRTAKRGCWSYRHSKITL
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FIGURE 1475

CTCCACTGACCGTCCCGACG**ATG**CTACGCGCGCCCGGCTGCCTCCTCCGGACCTCCGTAGCGCCTGCCGCGGCCC
TGGCTGCGGCGCTGCTCTCGTCGCTTGCGCGCTGCTCTCTTCTAGAGCCGAGGGACCCGGTGGCCTCGTCGCTCA
GCCCCTATTTCGGCACCAAGACTCGCTACGAGGATGTCAACCCCGTGCTATTGTCGGGCCCCGAGGCTCCGTGGC
GGGACCCTGAGCTGCTGGAGGGGACCTGCACCCCGGTGCAGCTGGTCGCCCTCATTCGCCACGGCACCCGCTACC
CCACGGTCAAACAGATCCGCAAGCTGAGGCAGCTGCACGGGTTGCTGCAGGCCCGCGGGTCCAGGGATGGCGGGG
CTAGTAGTACCGGCAGCCGCGACCTGGGTGCAGCGCTGGCCGACTGGCCTTTGTGGTACGCGGACTGGATGGACG
GGCAGCTAGTAGAAAAGGGACGGCAGGATATGCGACAGCTGGCGCTGCGTCTGGCCTCGCTCTTCCCGGCCCTTT
TCAGCCGTGAGAACTACGGCCGCCTGCGGCTCATCACCAGTTCCAAGCACCGCTGCATGGATAGCAGCGCCGCCT
TCCTGCAGGGGCTGTGGCAGCACTACCACCCTGGCTTGCCGCCGCCGGACGTCGCAGATATGGAGTTTGGACCTC
CAACAGTTAATGATAAACTAATGAGATTTTTTGATCACTGTGAGAAGTTTTTAACTGAAGTAGAAAAAAATGCTA
CAGCTCTTTATCACGTGGAAGCCTTCAAAACTGGACCAGAAATGCAGAACATTTTAAAAAAAGTTGCAGCTACTT
TGCAAGTGCCAGTAAATGATTTAAATGCAGATTTAATTCAAGTAGCCTTTTTCACCTGTTCATTTGACCTGGCAA
TTAAAGGTGTTAAATCTCCTTGGTGTGATGTTTTTGACATAGATGATGCAAAGGTATTAGAATATTTAAATGATC
TGAAACAATATTGGAAAAGAGGATATGGGTATACTATTAACAGTCGATCCAGCTGCACCTTGTTTCAGGATATCT
TTCAGCACTTGGACAAAGCAGTTGAACAGAAACAAAGGTCTCAGCCAATTTCTTCTCCAGTCATCCTCCAGTTTG
GTCATGCAGAGACTCTTCTTCCACTGCTTTCTCTCATGGGCTACTTCAAAGACAAGGAACCCCTAACAGCGTACA
ATTACAAAAAACAAATGCATCGGAAGTTCCGAAGTGGTCTCATTGTACCTTATGCCTCGAACCTGATATTTGTGC
TTTACCACTGTGAAAATGCTAAGACTCCTAAAGAACAATTCCGAGTGCAGATGTTATTAAATGAAAAGGTGTTAC
CTTTGGCTTACTCACAAGAAACTGTTTCATTTTATGAAGATCTGAAGAACCACTACAAGGACATCCTTCAGAGTT
GTCAAACCAGTGAAGAATGTGAATTAGCAAGGGCTAACAGTACATCTGATGAACTA**TGA**GTAACTGAAGAACATT
TTTAATTCTTTAGGAATCTGCAATGAGTGATTACATGCTTGTAATAGGTAGGCAATTCCTTGATTACAGGAAGCT
TTTATATTACTTGAGTATTTCTGTCTTTTCACAGAAAAACATTGGGTTTCTCTCTGGGTTTGGACATGAAATGTA
AGAAAAGATTTTTCACTGGAGCAGCTCTCTTAAGGAGAAACAAATCTATTTAGAGAAACAGCTGGCCCTGCAAAT
GTTTACAGAAATGAAATTCTTCCTACTTATATAAGAAATCTCACACTGAGATAGAATTGTGATTTCATAATAACA
CTTGAAAAG_T_GCTGGAGTAACAAAATATCTCAGTTGGACCATCCTTAACTTGATTGAACTGTCTAGGAACTTTAC
AGATTGTTCTGCAGTTCTCTCTTCTTTTCCTCAGGTAGGACAGCTCTAGCATTTTCTTAATCAGGAATATTGTGG
TAAGCTGGGAGTATCACTCTGGAAGAAAGTAACATCTCCAGATGAGAATTTGAAACAAGAAACAGAGTGTTGTAA
AAGGACACCTTCACTGAAGCAAGTCGGAAAGTACAATGAAAATAAATATTTTTGGTATTTATTTATGAAATATTT
GAACATTTTTTCAATAATTCCTTTTTACTTCTAGGAAGTCTCAAAAGACCATCTTAAATTATTATATGTTTGGAC
AATTAGCAACAAGTCAGATAGTTAGAATCGAAGTTTTTCAAATCCATTGCTTAGCTAACTTTTTCATTCTGTCAC
TTGGCTTCGATTTTTATATTTTCCTATTATATGAAATGTATCTTTTGGTTGTTTGATTTTTCTTTCTTTCTTTGT
AAATAGTTCTGAGTTCTGTCAAATGCCGTGAAAGTATTTGCTATAATAAAGAAAATTCTTGTGACTTTAAAAAAA
AAAAAAAAAAA

FIGURE 1476

MLRAPGCLLRTSVAPAAALAAALLSSLARCSLLEPRDPVASSLSPYFGTKTRYEDVNPVLLSGPEAPWRDPELLE
GTCTPVQLVALIRHGTRYPTVKQIRKLRQLHGLLQARGSRDGGASSTGSRDLGAALADWPLWYADWMDGQLVEKG
RQDMRQLALRLASLFPALFSRENYGRLRLITSSKHRCMDSSAAFLQGLWQHYHPGLPPPDVADMEFGPPTVNDKL
MRFFDHCEKFLTEVEKNATALYHVEAFKTGPEMQNILKKVAATLQVPVNDLNADLIQVAFFTCSFDLAIKGVKSP
WCDVFDIDDAKVLEYLNDLKQYWKRGYGYTINSRSSCTLFQDIFQHLDKAVEQKQRSQPISSPVILQFGHAETLL
PLLSLMGYFKDKEPLTAYNYKKQMHRKFRSGLIVPYASNLIFVLYHCENAKTPKEQFRVQMLLNEKVLPLAYSQE
TVSFYEDLKNHYKDILQSCQTSEECELARANSTSDEL

FIGURE 1477

ACTGCCACCTCGGTCGGTCGGTGCTTACTTCGCTGCCAGCTGGTCTGTCGCC**ATG**AACCCGGACCTGCGCAGGGA
GCGGGATTCCGCCAGCTTCAACCCGGAGCTGCTTACACACATCCTGGACGGCAGCCCCGAGAAAACGCGGCGCCG
CCGAGAGATCGAGAACATGATCCTGAACGACCCAGACTTCCAGCATGAGGACTTGAACTTCCTAACTCGCAGCCA
GCGTTATGAGGTGGCTGTCAGGAAAAGTGCCATCATGGTGAAGAAGATGAGGGAGTTTGGCATCGCTGACCCTGA
TGAAATTATGTGGTTTAAAAAACTACATTGGTCAATTTTGTGGAACCTGTGGGCCTCAATTACTCCATGTTTAT
TCCTACCTTGCTGAATCAGGGCACCACTGCTGAGAAAGAGAAATGGCTGCTTTCATCCAAAGGACTCCAGATAAT
TGGCACCTACGCCCAGACGGAAATGGGCCACGGAACTCACCTTCGAGGCTTGGAAACCACAGCCACGTATGACCC
TGAAACCCAGGAGTTCATTCTCAACAGTCCTACTGTGACCTCCATTAAATGGTGGCCTGGTGGGCTTGGAAAAAC
TTCAAATCATGCAATAGTCCTTGCCCAGCTCATCACTAAGGGGAAATGCTATGGATTACATGCCTTTATCGTACC
TATCCGTGAAATCGGGACCCATAAGCCTTTGCCAGGAATTACCGTTGGTGACATCGGGCCCAAATTTGGTTATGA
TGAGATAGACAATGGCTACCTCAAAATGGACAACCATCGTATTCCCAGAGAAAACATGCTGATGAAGTATGCCCA
GGTGAAGCCTGATGGCACATACGTGAAACCGCTGAGTAACAAGCTGACTTACGGGACCATGGTGTTTGTCAGGTC
CTTCCTTGTGGGAGAAGCTGCTCGGGCTCTGTCTAAGGCGTGCACCATTGCCATCCGATACAGCGCTGTGAGGCA
CCAGTCTGAAATGAAGCCAGGTGAACCAGAACCACAGATTTTGGATTTTCAAACCCAGCAGTATAAACTCTTTCC
ACTCCTGGCCACTGCCTATGCCTTCCAGTTTGTGGGCGCATACATGAAGGAGACCTATCACCGGATTAACGAAGG
CATTGGTCAAGGGGACCTGAGTGAACTGCCTGAGCTTCATGCCCTCACCGCTGGACTGAAGGCTTTCACCTCCTG
GACTGCAAACACTGGCATTGAAGCATGTCGGATGGCTTGTGGTGGGCATGGCTATTCTCATTGCAGTGGTCTTCC
AAATATTTATGTCAATTTCACCCCAAGCTGTACCTTTGAGGGAGAAAACACTGTCATGATGCTCCAGACGGCTAG
GTTCCTGATGAAAAGTTATGATCAGGTGCACTCAGGAAAGTTGGTGTGTGGCATGGTGTCCTATTTGAACGACCT
GCCCAGTCAGCGCATCCAGCCACAGCAGGTAGCAGTCTGGCCAACCATGGTGGATATCAACAGCCCCGAAAGCCT
AACCGAAGCATATAAACTCCGTGCAGCCAGATTAGTAGAAATTGCTGCAAAAAACCTTCAAAAAGAAGTGATTCA
CAGAAAAAGCAAGGAGGTAGCTTGGAACCTAACTTCTGTTGACCTTGTTCGAGCAAGTGAGGCACATTGCCACTA
TGTGGTAGTTAAGCTCTTTTCAGAAAAACTCCTCAAAATTCAAGATAAAGCCATTCAAGCTGTCTTAAGGAGTTT
ATGTCTGCTGTATTCTCTGTATGGAATCAGTCAGAACGCGGGGGATTTCCTTCAGGGGAGCATCATGACAGAGCC
TCAGATTACACAAGTAAACCAGCGTGTAAAGGAGTTACTCACTCTGATTCGCTCAGATGCTGTTGCTTTGGTTGA
TGCATTTGATTTTCAGGATGTGACACTTGGCTCTGTGCTTGGCCGCTATGATGGGAATGTGTATGAAAACTTGTT
TGAGTGGGCTAAGAACTCCCCACTGAACAAAGCAGAGGTCCACGAATCTTACCACAAGCACCTGAAGTCACTGCA
GTCCAAGCTC**TGA**AGTGTCACAAGGACAAGTTTAATCTGCTTCAGAAAGCGCCTGTGTGCAACTCAAATTTTGTG
GAATCTTTTCGAATTCAAATAGCTATAGAGCAAATGATAAATTGACCCCTTTTTATAAATGGAGGGAAAAAATGA
ACAGATTTCAGAGATTAAATGAAAAAAAGCAGATGTGTTTTAAGTGCAATTAACACTGAAAGAGACCTGTTAAAC
CATTCAGAAAAAGCTTAAGAAATGCGATATGACTTCCTTTTGTAATGCTGCTGATCCCAGTAGACTATGACTTTT
GATAATTAGCAGAATTTAACTACTGAGTAGTTGATTATTTTCACATTTTAATTGCTAATCACTGGCTATATAAGT
GTTTTTAAGCAAGGGTATTTTTGAAGTGGTGTAGAACCCTTCCACGCTTTCCTGCTCAGTGTTCTACCAGACAAG
AAAAGGGACTTGGGGAAGGAAACTTATTGGAAACTTGATGCGAATTAGGTTCTTCTTTGCACAAACTCTGCCTGC
TTGCTCTCCCTTGCTGATGGGTTGCAATTCTCAAACTATTCATGCTAGCAATTTTTCCACGGGGGGGCCTTTTTC
CCACGGGGGGCCTCTATAGGGGCCCATTTCTCCGGTAAATAGGAATTTCCCCTTTAAGGGGTGCCAGTAGTAGGAG
TATAGGGAACCTCTCAGCTGTGGCACTGTTGTAGCTTTGGAGTCAGAGTGTACTCTGGGCAATCAGATTTCCACA
TATTCTGCATCTTGGATAAGCATTAAAAGTTGGGATACTAATTTGGATAAAAAAATGCACTAGGCAAACTCCAGC
GAGACAGAAAGTATAGGGAAACCTCTCAGCTGTGGCACTGTTGTAGCTTTGGAGTGCAGAGTGTAACTCTGGCGA
CAATCAGATTTCACATATTCTGTCATCTTGGCATAAGCCATTAAAAGCTTGGAGATTACTGTATTTGGCATTAAA
AAAAAATGTCACTTAGGTCAGCACTCCCAGACGTAGCACAGAAAACCCTTTGACACAAACCATGTGTTCTGATT
TTTGGTTCAGA

FIGURE 1478

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MNPDLRRERDSASFNPELLTHILDGSPEKTRRRREIENMILNDPDFQHEDLNFLTRSQRYEVAVRKSAIMVKKMR
EFGIADPDEIMWFKKLHLVNFVEPVGLNYSMFIPTLLNQGTTAEKEKWLLSSKGLQIIGTYAQTEMGHGTHLRGL
ETTATYDPETQEFILNSPTVTSIKWWPGGLGKTSNHAIVLAQLITKGKCYGLHAFIVPIREIGTHKPLPGITVGD
IGPKFGYDEIDNGYLKMDNHRIPRENMLMKYAQVKPDGTYVKPLSNKLTYGTMVFVRSFLVGEAARALSKACTIA
IRYSAVRHQSEMKPGEPEPQILDFQTQQYKLFPLLATAYAFQFVGAYMKETYHRINEGIGQGDLSELPELHALTA
GLKAFTSWTANTGIEACRMACGGHGYSHCSGLPNIYVNFTPSCTFEGENTVMMLQTARFLMKSYDQVHSGKLVCG
MVSYLNDLPSQRIQPQQVAVWPTMVDINSPESLTEAYKLRAARLVEIAAKNLQKEVIHRKSKEVAWNLTSVDLVR
ASEAHCHYVVVKLFSEKLLKIQDKAIQAVLRSLCLLYSLYGISQNAGDFLQGSIMTEPQITQVNQRVKELLTLIR
SDAVALVDAFDFQDVTLGSVLGRYDGNVYENLFEWAKNSPLNKAEVHESYHKHLKSLQSKL
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FIGURE 1479

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GTGACGGGGAGGCGGTGCCCGGGGCATCTCCGCGGCGGAACTCAGCCTGTGAGAAGTCACTGCTTTGGGGAGACC
TGATCTGGCTGTGCCAGATGGACACTGAGAAAGAAGTAGAAGACTCAGAATTAGAAGAGGAACATGGAGCTGATC
CAGGACACCTCCCGCCCGCCACTGGAGTACGTGAAGGGGGTCCCGCTCATCAAGTACTTTGCAGAGGCACTGGGG
CCCCTGCAGAGCTTCCAAGCCCGACCTGATGACCTGCTCATCAACACCTACCCCAAGTCTGGCACCACCTGGGTG
AGCCAGATACTGGACATGATCTACCAGGGCGGCGACCTAGAGAAGTGTAACCGGGCTCCCATCTACGTACGGGTG
CCCTTCCTTGAGGTCAATGATCCAGGGGAACCCTCAGGGCTGGAGACTCTGAAAGACACACCGCCCCCACGGCTC
ATCAAGTCACACCTGCCCCTGGCTCTGCTCCCTCAGACTCTGTTGGATCAGAAGGTCAAGGTGGTCTATGTTGCC
CGAAACCCAAAGGACGTGGCGGTCTCCTACTACCATTTCCACCGTATGGAAAAGGCGCACCCTGAGCCTGGGACC
TGGGACAGCTTCCTGGAAAAGTTCATGGCTGGAGAAGTGTCCTACGGGTCCTGGTACCAGCACGTGCAGGAGTGG
TGGGAGCTGAGCCGCACCCACCCTGTTCTCTACCTCTTCTATGAAGACATGAAGGAGAACCCCAAAAGGGAGATT
CAAAAGATCCTGGAGTTTGTGGGGCGCTCCCTGCCAGAGGAGACCATGGACTTCATGGTTCAGCACACGTCGTTC
AAGGAGATGAAGAAGAACCCTATGACCAACTACACCACCGTCCCCCAGGAGCTCATGGACCACAGCATCTCCCCC
TTCATGAGGAAAGGCATGGCTGGGGACTGGAAGACCACCTTCACCGTGGCGCAGAATGAGCGCTTCGATGCGGAC
TATGCGGAGAAGATGGCAGGCTGCAGCCTCAGCTTCCGCTCTGAGCTGTGAGAGGGGCTCCTGGAGTCACTGCAG
AGGGAGTGTGCGAATCTACCCTGACCAATGGGCTCAAGAATAAAGTATGATTTTTGAGTCAGGCACAGTGGCTCA
TGTCTGCAATCCCAGCGATTTGGGAGGTTGAGCTGGTAGGATCACAATAGGCCACGAATTTGAGACCAGCCTGGT
AAAATAGTGAGACCTCATCTCTACAAAGATGTAAAAAAATTAGCCACATGTGCTGGCACTTACCTGTAGTCCCAG
CTACTTGGGAAGCAGAGGCTGGAGGATCATTTCAGCCCAGGAGGTTGTGGATACAGTGAGTTATGACATGCCCAT
TCACTACAGCCTGGATGACAAGCAAGACCCTCCCTCCAAAGAAAATAAAGCTCAATTAAAAT
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FIGURE 1480

MELIQDTSRPPLEYVKGVPLIKYFAEALGPLQSFQARPDDLLINTYPKSGTTWVSQILDMIYQGGDLEKCNRAPI
YVRVPFLEVNDPGEPSGLETLKDTPPPRLIKSHLPLALLPQTLLDQKVKVVYVARNPKDVAVSYYHFHRMEKAHP
EPGTWDSFLEKFMAGEVSYGSWYQHVQEWWELSRTHPVLYLFYEDMKENPKREIQKILEFVGRSLPEETMDFMVQ
HTSFKEMKKNPMTNYTTVPQELMDHSISPFMRKGMAGDWKTTFTVAQNERFDADYAEKMAGCSLSFRSEL

FIGURE 1481

GGGGCAGCGCAGGGCAGACGGCGGCAGGAGAAGCAAG**ATG**AATGCAGGCTCAGATCCTGTGGTCATCGTCTCGGC
GGCGCGGACCATCATAGGTTCCTTCAATGGTGCCTTAGCTGCTGTTCCTGTCCAGGACCTGGGCTCCACTGTCAT
CAAAGAAGTCTTGAAGAGGGCCACTGTGGCTCCGGAAGATGTGTCTGAGGTCATCTTTGGACATGTCTTGGCAGC
AGGCTGTGGGCAGAATCCTGTTAGACAAGCCAGTGTGGGTGCAGGAATTCCCTACTCTGTTCCAGCATGGAGCTG
CCAGATGATCTGTGGGTCAGGCCTAAAAGCTGTGTGCCTTGCAGTCCAGTCAATAGGGATAGGAGACTCCAGCAT
TGTGGTTGCAGGAGGCATGGAAAATATGAGCAAGGCTCCTCACTTGGCTTACTTGAGAACAGGAGTAAAGATAGG
TGAGATGCCACTGACTGACAGTATACTCTGTGATGGTCTTACAGATGCATTTCACAACTGTCATATGGGTATTAC
AGCTGAAAATGTAGCCACAAAATGGCAAGTGAGTAGAGAAGATCAGGACAAGGTTGCAGTTCTGTCCCAGAACAG
GACAGAGAATGCACAGAAAGCTGGCCATTTTGACAAAGAGATTGTACCAGTTTTGGTGTCAACTAGAAAAGGTCT
TATTGAAGTTAAAACAGATGAGTTTCCTCGCCATGGGAGCAACATAGAAGCCATGTCCAAGCTAAAGCCTTACTT
TCTTACTGATGGAACGGGAACAGTCACCCCAGCCAATGCTTCAGGAATAAATGATGGTGCTGCAGCTGTTGCTCT
TATGAAGAAGTCAGAAGCTGATAAACGTGGGCTTACACCTTTAGCACGGATAGTTTCCTGGTCCCAAGTGGGTGT
GGAGCCTTCCATTATGGGAATAGGACCAATTCCAGCCATAAAGCAAGCTGTTACAAAAGCAGGTTGGTCACTGGA
AGATGTTGACATATTTGAAATCAATGAAGCCTTTGCAGCTGTCTCTGCTGCAATAGTTAAAGAACTTGGATTAAA
CCCAGAGAAGGTCAATATTGAAGGAGGGGCTATAGCCTTGGGCCACCCTCTTGGAGCATCTGGCTGTCGAATTCT
TGTGACCCTGTTACACACACTGGAGAGAATGGGCAGAAGTCGTGGTGTTGCAGCCCTGTGCATTGGGGGTGGGAT
GGGAATAGCAATGTGTGTTCAGAGAGAA**TGA**CAATGTGTGTTCAGAGAGAATGAATTGCTTAAACTTTGAACAAC
CTCAATTTCTTTTTAAACTAATAAAGTACTAGGTTGCAATATGTGAAATCAGAGGACCAAAGTACAGATGGAAAC
CATTTCCTACATCACAAAAACCCAAGTTTACAGCTTGTACTTTACTTTAATGTGTAATACTCAACTCACGGTACA
AGACAATTGCATTTAACATTGTTATAAATAAAAGGAACATCAGATCAATCATTAAAAAAAAAAAA

FIGURE 1482

MNAGSDPVVIVSAARTIIGSFNGALAAVPVQDLGSTVIKEVLKRATVAPEDVSEVIFGHVLAAGCGQNPVRQASV
GAGIPYSVPAWSCQMICGSGLKAVCLAVQSIGIGDSSIVVAGGMENMSKAPHLAYLRTGVKIGEMPLTDSILCDG
LTDAFHNCHMGITAENVATKWQVSREDQDKVAVLSQNRTENAQKAGHFDKEIVPVLVSTRKGLIEVKTDEFPRHG
SNIEAMSKLKPYFLTDGTGTVTPANASGINDGAAAVALMKKSEADKRGLTPLARIVSWSQVGVEPSIMGIGPIPA
IKQAVTKAGWSLEDVDIFEINEAFAAVSAAIVKELGLNPEKVNIEGGAIALGHPLGASGCRILVTLLHTLERMGR
SRGVAALCIGGGMGIAMCVQRE

FIGURE 1483A

CCGTTCACGCGTTCGGTCCTCCTTGGCTGACTCACCGCCCTCGCCGCCGCACC**ATG**GACGCCCCCAGGCAGGTGG
TCAACTTTGGGCCTGGTCCCGCCAAGCTGCCGCACTCAGTGTTGTTAGAGATACAAAAGGAATTATTAGACTACA
AAGGAGTTGGCATTAGTGTTCTTGAAATGAGTCACAGGTCATCAGATTTTGCCAAGATTATTAACAATACAGAGA
ATCTTGTGCGGGAATTGCTAGCTGTTCCAGACAACTATAAGGTGATTTTTCTGCAAGGAGGTGGGTGCGGCCAGT
TCAGTGCTGTCCCCTTAAACCTCATTGGCTTGAAAGCAGGAAGGTGTGCTGACTATGTGGTGACAGGAGCTTGGT
CAGCTAAGGCCGCAGAAGAAGCCAAGAAGTTTGGGACTATAAATATCGTTCACCCTAAACTTGGGAGTTATACAA
AAATTCCAGATCCAAGCACCTGGAACCTCAACCCAGATGCCTCCTACGTGTATTATTGCGCAAATGAGACGGTGC
ATGGTGTGGAGTTTGACTTTATACCCGATGTCAAGGGAGCAGTACTGGTTTGTGACATGTCCTCAAACTTCCTGT
CCAAGCCAGTGGATGTTTCCAAGTTTGGTGTGATTTTTGCTGGTGCCCAGAAGAATGTTGGCTCTGCTGGGGTCA
CCGTGGTGATTGTCCGTGATGACCTGCTGGGGTTTGCCCTCCGAGAGTGCCCCTCGGTCCTGGAATACAAGGTGC
AGGCTGGAAACAGCTCCTTGTACAACACGCCTCCATGTTTCAGCATCTACGTCATGGGCTTGGTTCTGGAGTGGA
TTAAAAACAATGGAGGTGCCGCGGCCATGGAGAAGCTTAGCTCCATCAAATCTCAAACAATTTATGAGATTATTG
ATAATTCTCAAGGATTCTACGTTTGTCCAGTGGAGCCCCAAAATAGAAGCAAGATGAATATTCCATTCCGCATTG
GCAATGCCAAAGGAGATGATGCTTTAGAAAAAAGATTTCTTGATAAAGCTCTTGAACTCAATATGTTGTCCTTGA
AAGGGCATAGGTCTGTGGGAGGCATCCGGGCCTCTCTGTATAATGCTGTCACAATTGAAGACGTTCAGAAGCTGG
CCGCCTTCATGAAAAAATTTTTGGAGATGCATCAGCTA**TGA**ACACATCCTAACCAGGATATACTCTGTTCTTGAA
CAACATACAAAGTTTAAAGTAACTTGGGGATGGCTACAAAAAGTTAACACAGTATTTTTCTCAAATGAACATGTT
TATTGCAGATTCTTCTTTTTTGAAAGAACAACAGCAAAACATCCACAACTCTGTAAAGCTGGTGGGACCTAATGT
CACCTTAATTCTGACTTGAACTGGAAGCATTTTAAGAAATCTTGTTGCTTTTCTAACAAATTCCCGCGTATTTTG
CCTTTGCTGCTACTTTTTCTAGTTAGATTTCAAACTTGCCTGTGGACTTAATAATGCAAGTTGCGATTAATTATT
TCTGGAGTCATGGGAACACACAGCACAGAGGGTAGGGGGGCCCTCTAGGTGCTGAATCTACACATCTGTGGGGTC
TCCTGGGTTCAGTGGCTGTTGATTCAAGGTCAACATTGACCATTGGAGGAGTGGTTTAAGAGTGCCAGGCGAAGG
GCAAACTGTAGATCGATCTTTATGCTGTTATTACAGGAGAAGTGACATACTTTATATATGTTTATATTAGCAAGG
TCTGTTTTTAATACCATATACTTTATATTTCTATACATTTATATTTCTAATAATACAGTTATCACTGATATATGT
AGACACTTTTAGAATTTATTAAATCCTTGACCTTGTGCATTATAGCATTCCATTAGCAAGAGTTGTACCCCCTCC
CCAGTCTTCGCCTTCCTCTTTTTAAGCTGTTTTATGAAAAAGACCTAGAAGTTCTTGATTCATTTTTACCATTCT
TTCCATAGGTAGAAGAGAAAGTTGATTGGTTGGTTGTTTTTCAATTATGCCATTAAACTAAACATTTCTGTTAAA
TTACCCTATCCTTTGTTCTCTACTGTTTTCTTTGTAATGTATGACTACGAGAGTGATACTTTGCTGAAAAGTCTT
TCCCCTATTGTTTATCTATTGTCAGTATTTTATGTTGAATATGTAAAGAACATTAAAGTCCTAAACACGGTTCTA
AGCTAAGTGAAGGGGAAGATCTGAGAGCGTGCTGTTTGTGGCTGTTGATGCATATTCGTGATGTAACAGGTCCTG
GGGCCTCACTTTACCCCATTTGTAAAATGGGGCTAATGTCACCTGCCTCTTACCTACCTCAGAGGGATTGGGTGA
AGCAAACTGTTAATCTTCGAAAACGACCATTTCACTTCTTGGATATCAAGTGCTAACCCAGTATGTTCTTCTTTT
TTATGTAAGGGACAGCTTTCTCCACAGAGTCCTTTCTGCTGGTGAGGACAGCATTTCTGAGCAGGGCTTTGTTCT
CTATGTGCATTAGGACTTTATCATGCCCTTGTTCTGTGTGTAGTTACTTGACAGCATCAAATGCCGCCTCTTCC
TAATGTCCTTCAAGTTTTCATGAACTAGCAACCCCACCTTCCACCATGGTTCTGGGCGCCTGATTTGCTGTGAC
TCCCAGACCCAGCCACTGTTTCTGCCACCCTGTAACAGGCCATTAAAGCTCCCCAGTGTTCAGCCTCCTTCACTC
CCTTGTTTTCCCTGTTGCTATGTGTCACCTGGGCCCTACAGACAGGGGCACACGCTTATGGATGTGTGTACCATT
GAGATGAGAATGGGTAGATGGAACGGAGACCATCAAGCCACACCCCCTTCTTAAAAACTGGGGACATGAGCCTGAG
CAGAAAGGGTGAAGAAGAGCCATGGGACACAGAGTTGACCCAGCCAGGGGGAAAGCCCAGCTCTCTTTAAACCAG
CTAAGCCATTCCAGTCTCCTGTGAAGCCAAAAGGGACCAGGAACCGTGCAAAGGAAACTGGAAACTTTTCCCCGC
TGGGTAGAGCATGTTGCTGATACTCTTCTGTTTTCAAGGGAAACAATCACATTGTTTGATTCCAAATGGTAAATG
AACACTCACTATTCTTCAGGCTTCAGTAAATCTTTTTTTCTTCCTTCATATATATATACAACACACACACACA
TATGTATATCTATACACACATGTGTGTTGTGTATATGCATGTGTGTGTGTGCGTGTGTGTATAGTTTTAGCTCCA
AGCCAAGCAAGTTTGTGTTTGGATAGAGGGGAACTTAACTATTAACTACAAGTTGTATGTCTGTGGTATCTTGAT
TTTCCCATTTCTAAAGATGAATTTCACAAAGCCATAAAGCGTGAAATTAGAGCTGGACTTAAGACTCATTGGCCG
ACCATCCTGTGTCCTGGCCTGGCCCTGCAGTAAGAAGCGTGTCTGGGTCTGGAGAAGGGTGCTTCCGAGAGTGTG
CAGGTGGCCCTTCCCCTTGGAGGCGAGAAGAGAGAATGTGCTGTCTATCTTCCTGGTTTTCAGTCCACAGAGTCG
GTAGACCAGGGGTTACGTGACTGGGGAAAATCTCACATCTCCTTGTCTGAAAACATTTCCCCTGCTGTTCTCTTT

FIGURE 1483B

CTAACATGTTGTGGTAAATCTGTTCAGATACTGCTCATCTGACTGTTTTGTACATGTGACAATTGCCTTAAAACC
TAGCACAGTCCTCAGAAATGAATACCGTGTTTCCACTGGAAAAAAAAAAAAAAAAAAAAAAAAAAA

FIGURE 1484

MDAPRQVVNFGPGPAKLPHSVLLEIQKELLDYKGVGISVLEMSHRSSDFAKIINNTENLVRELLAVPDNYKVIFL
QGGGCGQFSAVPLNLIGLKAGRCADYVVTGAWSAKAAEEAKKFGTINIVHPKLGSYTKIPDPSTWNLNPDASYVY
YCANETVHGVEFDFIPDVKGAVLVCDMSSNFLSKPVDVSKFGVIFAGAQKNVGSAGVTVVIVRDDLLGFALRECP
SVLEYKVQAGNSSLYNTPPCFSIYVMGLVLEWIKNNGGAAAMEKLSSIKSQTIYEIIDNSQGFYVCPVEPQNRSK
MNIPFRIGNAKGDDALEKRFLDKALELNMLSLKGHRSVGGIRASLYNAVTIEDVQKLAAFMKKFLEMHQL

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FIGURE 1485

GCACGAGCC**ATG**GCGGACAACGAGAAACTGGACAACCAACGGCTCAAGAATTTCAAGAACAAAGGCCGCGACTTG
GAGACTATGAGAAGACAACGAAATGAAGTTGTAGTTGAATTAAGGAAGAATAAAAGAGATGAACATCTCTTAAAG
AGAAGGAATGTACCACATGAAGATATCTGTGAAGACTCTGATATAGATGGTGATTATAGAGTGCAAAATACCTCT
CTAGAAGCTATTGTTCAAAATGCTTCAAGTGATAACCAAGGAATTCAATTAAGTGCAGTTCAAGCTGCTAGGAAG
CTTTTGTCCAGTGATCGAAATCCACCAATTGATGACTTAATAAAATCTGGAATATTGCCCATTTTAGTCCATTGT
CTTGAAAGAGATGACAATCCTTCTTTACAGTTTGAAGCTGCATGGGCTTTGACAAACATTGCATCTGGAACTTCT
GAACAAACTCAAGCAGTAGTTCAGTCCAATGCTGTGCCACTTTTCCTGAGGCTTCTCCATTCACCCCATCAGAAT
GTCTGTGAGCAAGCAGTGTGGGCATTGGGAAATATCATAGGTGATGGGCCCCAGTGTAGAGATTATGTCATAAGT
CTTGGAGTTGTGAAACCTTTACTTTCCTTCATAAGTCCATCTATTCCTATAACATTCTTAAGAAATGTTACTTGG
GTTATGGTCAACTTATGTCGCCACAAAGACCCACCACCACCAATGGAAACCATTCAGGAGATTCTTCCAGCCCTT
TGTGTTTTAATTCATCACACAGATGTAAATATACTGGTAGACACAGTCTGGGCCCTCTCTTACCTTACTGATGCT
GGCAATGAACAAATACAGATGGTAATAGACTCTGGAATAGTTCCTCATTTGGTTCCTCTGCTCAGCCACCAGGAA
GTTAAAGTTCAGACTGCTGCACTTAGAGCTGTGGGCAACATTGTTACTGGAACTGATGAGCAAACACAAGTAGTT
TTGAACTGTGATGCTCTTTCACACTTCCCAGCACTCCTGACACATCCCAAAGAGAAAATTAATAAAGAAGCAGTG
TGGTTCCTCTCCAACATCACTGCAGGAAATCAGCAGCAGGTACAGGCAGTAATTGATGCCAATCTTGTACCAATG
ATAATACACCTTTTGGATAAGGGGGATTTTGGCACTCAAAAAGAAGCTGCTTGGGCCATAAGTAACTTAACAATT
AGTGGAAGGAAAGATCAAGTGGCTTACCTTATCCAACAAAATGTTATCCCACCTTTTTGCAACTTGCTGACTGTA
AAAGATGCACAAGTTGTGCAAGTAGTACTCGATGGACTAAGTAATATATTAAAAATGGCTGAAGATGAGGCAGAA
ACCATAGGCAATCTTATAGAAGAATGTGGAGGGCTGGAGAAAATTGAACAACTTCAAAATCATGAAAATGAAGAC
ATCTACAAATTGGCCTATGAGATCATTGATCAGTTCTTCTCTTCAGATGATATTGATGAAGACCCTAGCCTTGTT
CCAGAGGCAATTCAAGGCGGAACATTTGGTTTCAATTCATCTGCCAATGTACCAACAGAAGGGTTCCAGTTT**TAG**

AAAGATGTTGTGGAAGTTAGGTACAATGCAGCACTGAGATATATATATATATATGTGTGTGTGTATATATATA
TATATACATATATATAAAAAGGTTTGATCCATCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

FIGURE 1486

MADNEKLDNQRLKNFKNKGRDLETMRRQRNEVVVELRKNKRDEHLLKRRNVPHEDICEDSDIDGDYRVQNTSLEA
IVQNASSDNQGIQLSAVQAARKLLSSDRNPPIDDLIKSGILPILVHCLERDDNPSLQFEAAWALTNIASGTSEQT
QAVVQSNAVPLFLRLLHSPHQNVCEQAVWALGNIIGDGPQCRDYVISLGVVKPLLSFISPSIPITFLRNVTWVMV
NLCRHKDPPPPMETIQEILPALCVLIHHTDVNILVDTVWALSYLTDAGNEQIQMVIDSGIVPHLVPLLSHQEVKV
QTAALRAVGNIVTGTDEQTQVVLNCDALSHFPALLTHPKEKINKEAVWFLSNITAGNQQQVQAVIDANLVPMIIH
LLDKGDFGTQKEAAWAISNLTISGRKDQVAYLIQQNVIPPFCNLLTVKDAQVVQVVLDGLSNILKMAEDEAETIG
NLIEECGGLEKIEQLQNHENEDIYKLAYEIIDQFFSSDDIDEDPSLVPEAIQGGTFGFNSSANVPTEGFQF

FIGURE 1487A

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CTGGGTCCTGTGTGTGCCACAGGGGTGGGGTGTCCAGCGAGCGGTCTCCTCCTCCTGCTAGTGCTGCTGCGGCGT
CCCGCGGCCTCCCCGAGTCGGGCGGGAGGGGAGAGCGGGTGTGGATTTGTCTTGACGGTAATTGTTGCGTTTCCA
CGTCTCGGAGGCCTGCGCGCTGGGTTGCTCCTTCTTCGGGAGCGAGCTGTTCTCAGCGATCCCACTCCCAGCCGG
GGCTCCCCACACACACTGGGCTGCGTGCGTGTGGAGTGGGACCCGCGCACACGCGTGTCTCTGGACAGCTACGGC
GCCGAAGAACTAAAATTCCAG**ATG**GCAAACTCAATGAATGGCAGAAACCCTGGTGGTCGAGGAGGAAATCCCCG
AAAAGGTCGAATTTTGGGTATTATTGATGCTATTCAGGATGCAGTTGGACCCCCTAAGCAAGCTGCCGCAGATCG
CAGGACCGTGGAGAAGACTTGGAAGCTCATGGACAAAGTGGTAAGACTGTGCCAAAATCCCAAACTTCAGTTGAA
AAATAGCCCACCATATATACTTGATATTTTGCCTGATACATATCAGCATTTACGACTTATATTGAGTAAATATGA
TGACAACCAGAAACTTGCCCAACTCAGTGAGAATGAGTACTTTAAAATCTACATTGATAGCCTTATGAAAAAGTC
AAAACGGGCAATAAGACTCTTTAAAGAAGGCAAGGAGAGAATGTATGAAGAACAGTCACAGGACAGACGAAATCT
CACAAAACTGTCCCTTATCTTCAGTCACATGCTGGCAGAAATCAAAGCAATCTTTCCCAATGGTCAATTCCAGGG
AGATAACTTTCGTATCACAAAAGCAGATGCTGCTGAATTCTGGAGAAAGTTTTTGGAGACAAAACTATCGTACC
ATGGAAAGTATTCAGACAGTGCCTTCATGAGGTCCACCAGATTAGCTCTAGCCTGGAAGCAATGGCTCTAAAATC
AACAATTGATTTAACTTGCAATGATTACATTTCAGTTTTTGAATTTGATATTTTTACCAGGCTGTTTCAGCCTTG
GGGCTCTATTTTGCGGAATTGGAATTTCTTAGCTGTGACACATCCAGGTTACATGGCATTTCTCACATATGATGA
AGTTAAAGCACGACTACAGAAATATAGCACCAAACCCGGAAGCTATATTTTCCGGTTAAGTTGCACTCGATTGGG
ACAGTGGGCCATTGGCTATGTGACTGGGGATGGGAATATCTTACAGACCATACCTCATAACAAGCCCTTATTTCA
AGCCCTGATTGATGGCAGCAGGGAAGGATTTTATCTTTATCCTGATGGGAGGAGTTATAATCCTGATTTAACTGG
ATTATGTGAACCTACACCTCATGACCATATAAAAGTTACACAGGAACAATATGAATTATATTGTGAAATGGGCŢC
CACTTTTCAGCTCTGTAAGATTTGTGCAGAGAATGACAAAGATGTCAAGATTGAGCCTTGTGGGCATTTGATGTG
CACCTCTTGCCTTACGGCATGGCAGGAGTCGGATGGTCAGGGCTGCCCTTTCTGTCGTTGTGAAATAAAAGGAAC
TGAGCCCATAATCGTGGACCCCTTTGATCCAAGAGATGAAGGCTCCAGGTGTTGCAGCATCATTGACCCCTTTGG
CATGCCGATGCTAGACTTGGACGACGATGATGATCGTGAGGAGTCCTTGATGATGAATCGGTTGGCAAACGTCCG
AAAGTGCACTGACAGGCAGAACTCACCAGTCACATCACCAGGATCCTCTCCCCTTGCCCAGAGAAGAAAGCCACA
GCCTGACCCACTCCAGATCCCACATCTAAGCCTGCCACCCGTGCCTCCTCGCCTGGATCTAATTCAGAAAGGCAT
AGTTAGATCTCCCTGTGGCAGCCCAACAGGTTCACCAAAGTCTTCTCCTTGCATGGTGAGAAAACAAGATAAACC
ACTCCCAGCACCACCTCCTCCCTTAAGAGATCCTCCTCCACCGCCACCTGAAAGACCTCCACCAATCCCACCAGA
CAATAGACTGAGTAGACACATCCATCATGTGGAAAGCGTGCCTTCCAGAGACCCGCCAATGCCTCTTGAAGCATG
GTGCCCTCGGGATGTGTTTGGGACTAATCAGCTTGTGGGATGTCGACTCCTAGGGGAGGGCTCTCCAAAACCTGG
AATCACAGCGAGTTCAAATGTCAATGGAAGGCACAGTAGAGTGGGCTCTGACCCAGTGCTTATGCGGAAACACAG
ACGCCATGATTTGCCTTTAGAAGGAGCTAAGGTCTTTTCCAATGGTCACCTTGGAAGTGAAGAATATGATGTTCC
TCCCCGGCTTTCTCCTCCTCCTCCAGTTACCACCCTCCTCCCTAGCATAAAGTGTACTGGTCCGTTAGCAAATTC
TCTTTCAGAGAAAACAAGAGACCCAGTAGAGGAAGATGATGATGAATACAAGATTCCTTCATCCCACCCTGTTTC
CCTGAATTCACAACCATCTCATTGTCATAATGTAAAACCTCCTGTTCGGTCCTGTGATAATGGTCACTGTATGCT
GAATGGAACACATGGTCCATCTTCAGAGAAGAAATCAAACATCCCTGACTTAAGCATATATTTAAAGGGAGATGT
TTTTGATTCAGCCTCTGATCCCGTGCCATTACCACCTGCCAGGCCTCCAACTCGGGACAATCCAAAGCATGGTTC
TTCACTCAACAGGACGCCCTCTGATTATGATCTTCTCATCCCTCCATTAGGTGAAGATGCTTTTGATGCCCTCCC
TCCATCTCTCCCACCTCCCCCACCTCCTGCAAGGCATAGTCTCATTGAACATTCAAAACCTCCTGGCTCCAGTAG
CCGGCCATCCTCAGGACAGGATCTTTTTCTTCTTCCTTCAGATCCCTTTGTTGATCTAGCAAGTGGCCAAGTTCC
TTTGCCTCCTGCTAGAAGGTTACCAGGTGAAAATGTCAAAACTAACAGAACATCACAGGACTATGATCAGCTTCC
TTCATGTTCAGATGGTTCACAGGCACCAGCCAGACCCCCTAAACCACGACCGCGCAGGACTGCACCAGAAATTCA
CCACAGAAAACCCATGGGCCTGAGGCGGCATTGGAAAATGTCGATGCAAAAATTGCAAACTCATGGGAGAGGG
TTATGCCTTTGAAGAGGTGAAGAGAGCCTTAGAGATAGCCCAGAATAATGTCGAAGTTGCCCGGAGCATCCTCCG
AGAATTTGCCTTCCCTCCTCCAGTATCCCCACGTCTAAATCTA**TAG**CAGCCAGAACTGTAGACACCAAAATGGAA
AGCAATCGATGTATTCCAAGAGTGTGGAAATAAAGAGAACTGAGATGGAATTCAAGAGAGAAGTGTCTCCTCCTC
GTGTAGCAGCTTGAGAAGAGGCTTGGGAGTGCAGCTTCTCAAAGGAGACCGATGCTTGCTCAGGATGTCGACAGC
TGTGGCTTCCTTGTTTTTGCTAGCCATATTTTTAAATCAGGGTTGAACTGACAAAAATAATTTAAAGACGTTTAC
TTCCCTTGAACTTTGAACCTGTGAAATGCTTTACCTTGTTTACAATTTGGCAAAGTTGCAGTTTGTTCTTGTTTT
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FIGURE 1487B

TAGTTTAGTTTTGTTTTGGTGTTTTGATACCTGTACTGTGTTCTTCACAGACCCTTTGTAGCGTGGTCAGGTCTG
CTGTAACATTTCCCACCAACTCTCTTGCTGTCCACATCAACAGCTAAATCATTTATTCATATGGATCTCTACCAT
CCCCATGCCTTGCCCAGGTCCAGTTCCATTTCTCTCATTCACAAGATGCTTTGAAGGTTCTGATTTTCAACTGAT
CAAACTAATGCAAAAAAAAAAGTATGTATTCTTCACTACTGAGTTTCTTCTTTGGAAACCATCACTATTGAGAG
ATGGGAAAAACCTGAATGTATAAAGCATTTATTTGTCAATAAACTGCCTTTTGTAAGGGGTTTTCACATAAAAAA
AAAAAAA

FIGURE 1488

MANSMNGRNPGGRGGNPRKGRILGIIDAIQDAVGPPKQAAADRRTVEKTWKLMDKVVRLCQNPKLQLKNSPPYIL
DILPDTYQHLRLILSKYDDNQKLAQLSENEYFKIYIDSLMKKSKRAIRLFKEGKERMYEEQSQDRRNLTKLSLIF
SHMLAEIKAIFPNGQFQGDNFRITKADAAEFWRKFFGDKTIVPWKVFRQCLHEVHQISSSLEAMALKSTIDLTCN
DYISVFEFDIFTRLFQPWGSILRNWNFLAVTHPGYMAFLTYDEVKARLQKYSTKPGSYIFRLSCTRLGQWAIGYV
TGDGNILQTIPHNKPLFQALIDGSREGFYLYPDGRSYNPDLTGLCEPTPHDHIKVTQEQYELYCEMGSTFQLCKI
CAENDKDVKIEPCGHLMCTSCLTAWQESDGQGCPFCRCEIKGTEPIIVDPFDPRDEGSRCCSIIDPFGMPMLDLD
DDDDREESLMMNRLANVRKCTDRQNSPVTSPGSSPLAQRRKPQPDPLQIPHLSLPPVPPRLDLIQKGIVRSPCGS
PTGSPKSSPCMVRKQDKPLPAPPPPLRDPPPPPPERPPPIPPDNRLSRHIHHVESVPSRDPPMPLEAWCPRDVFG
TNQLVGCRLLGEGSPKPGITASSNVNGRHSRVGSDPVLMRKHRRHDLPLEGAKVFSNGHLGSEEYDVPPRLSPPP
PVTTLLPSIKCTGPLANSLSEKTRDPVEEDDDEYKIPSSHPVSLNSQPSHCHNVKPPVRSCDNGHCMLNGTHGPS
SEKKSNIPDLSIYLKGDVFDSASDPVPLPPARPPTRDNPKHGSSLNRTPSDYDLLIPPLGEDAFDALPPSLPPPP
PPARHSLIEHSKPPGSSSRPSSGQDLFLLPSDPFVDLASGQVPLPPARRLPGENVKTNRTSQDYDQLPSCSDGSQ
APARPPKPRPRRTAPEIHHRKPHGPEAALENVDAKIAKLMGEGYAFEEVKRALEIAQNNVEVARSILREFAFPPP
VSPRLNL

FIGURE 1489

AATCCTCAGTCTGGTCTATATTGTTACTTGCCTGTXTCCACTAGAAGGAGTCACCCAGGCATTTAGTGAATGATA
ATCCTAGAAGTTGAGTCTGAGTACATCAGAGTTTGGCATTATTTGCAACATCCCAGGAATGAGCTATAAGACTCC
ATTGCTTTCTGGACTTTAGTGACCAGCTGATCTTCCCTTGGATCCTCCAATAAAGGGGAAAAAATACTTGTCTTA
TGTTGTTTTAGCAAGGGAGTTCAGCCAAGTGACAGGAAAGATTCCCTGGTCTGCATCTAAACATTAGTCAACAGA
AGGAAAAGGCTCTTTTCCTTGGAGATTTTCAAGTTGAAAAAGTACAGCTGCTTGGATGGAGTTTCTCTCATCAGA
ATAGAAATATGCTAGGTGGTCTTCAAGACCTTTTTGAACCTACAGATTCTAAACCTTAGAGGAAGCCAGAATATG
TGATCATACCAGGTGAGGAAAGTTAGGAGATATTCATCTTAAGAGATATCCTATTTGGCAGTCACATGTTACACT
TGAGCAACAATTGTCTAGGCTAGAAATATAGAACCACACAATATTTATCATCATTGGGTCAATTTCTCCCCCTCT
ATCAAGTGAGGAGATTAAGGCTTAAAGAAAGGAAAGGACTTGCCAGCCACCACAGGGCTCATGAGGGGCTTGAAC
CCATGTCGTGTGTCTCTACCACAGCTGACTCTCAGCTGGCTAATGGAGAAAATGTGAGGAATTACCTGTCAAATT
AGATTGAGCTCAGAGTAAATAGATGAGCACATTTATAACTCTAAATTAGACTTTCTATCAAATGGGACCAAACAT
ATGGAAGGGGCTGCTGTCCTGCCTCAATTTAGCCAAGACTTGTCTTGTCTCAAAGCCAAGACTCAGCAGTACATG
GATTCTGAGAAGTCCAGGGTCTGAATTGTTGTCTCTGATTACTGGAAGGACAGGTAACTGAATGTCTGTGATCA
CTAACAGGTG**ATG**GGCTTTGTGCCCACTCCAGAGATATTGTGGGAGACAAATTCTTTTAACAGCCTGTCCTCCCG
GCATCAGGAGTCATTGAACAATCATGGATTGTTGTGTTTGGGATTTTTTTTTTTTTGGCTTTGTTTTTGGTTTT
TGTGTGTGTGTGTGTGTGCTGCATGCACATGCGTCCAAGACTTACGGGTGGTTTAGGGGAAAGTGCTAGCAACAG
TGTCAATGTCATTGTTAACTATATTTCATATTTGAGGTCTCATTGTTTTCAAATAAACAGTGTTTTCCATGAAAA
AAAAAAAAAAAAAAAATTCCTGCGGCCGTCAAGG

FIGURE 1490

MGFVPTPEILWETNSFNSLSSRHQESLNNHGLLCLGFFFFLALFLVFVCVCVCCMHMRPRLTGGLGESASNSVNV
IVNYISYLRSHCFQINSVFHEKKKKKNSCGRQ

FIGURE 1491

GTGGGAGGAGGCACCGGCCGCGCGGCGGGAGGAGGTGCCGGCCGAGCACCGCAGACAGCGCCGGGAAG**ATG**AGCA
CGGAAGGTGGTGGCCGTCGCTGCCAGGCACAAGTGTCCCGCCGCATCTCCTTCAGCGCGAGCCACCGATTGTACA
GTAAATTTCTAAGTGATGAAGAAAACTTGAAACTGTTTGGGAAATGCAACAATCCAAATGGCCATGGGCACAATT
ATAAAGTTGTGGTGACAGTACATGGAGAGATTGACCCTGCTACGGGAATGGTTATGAATCTGGCTGATCTCAAAA
AATATATGGAGGAGGCGATTATGCAGCCCCTTGATCATAAGAATCTGGATATGGATGTGCCATACTTTGCAGATG
TGGTGAGCACGACTGAAAATGTAGCTGTTTATATCGGGACAACCTCCAGAAAGTTCTTCCTGTAGGAGTTCTTT
ATAAAGTAAAAGTATACGAAACTGACAATAATATTGTGGTTTATAAAGGAGAA**TAG**CTATTGGGGTTAGCATTGC
ACAAAGCCCAGTTTCTTTCTGTGTTTGAAAAAGATTTTGATCCCCTTGGAATATTAAGAGGTCAACACGTGATTG
TTGTACGTACACATTGTGCTCTGGAGTGCCTATTTATTGAAATCATTGTAAGACCTGTTATAAATTTAAGTCTAT
TTAAAACTAAACTTGTAATATACATCCTGAAAATCATTTAGAGAGTCTTTTATTTATAAATTAAAAATCACTTCA
TTTTCACAAAATGTTTTGGTGTGGGATTATTTGAAAGCAAAAGAAATCTAATTTTGTTTTCTCCATTACCTCATT
TTAGTATTAATTTTTACTTGGTATAATATACATGGTTAAAATGCTTATGTGACTTCGAGTAGGTGAATCTTAAAG
AAATAAAATTCAAGTGACCAC

1679/2825
FIGURE 1492

MSTEGGGRRCQAQVSRRISFSASHRLYSKFLSDEENLKLFGKCNNPNGHGHNYKVVVTVHGEIDPATGMVMNLAD
LKKYMEEAIMQPLDHKNLDMDVPYFADVVSTTENVAVYIWDNLQKVLPVGVLYKVKVYETDNNIVVYKGE

FIGURE 1493

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GGCCTGGCCCAGTTGCACCACGAGCGCTGCGGACACTCGGGGCGGCAGTCGGTCTGTCAGTCCTCCCGCCAGGTC
CCGCGGCCCGCACCTGCCGCCCGCACCTGCAGCTCCGCACCTGCGGCCAGTGCCTACTGCCCTCTCTTGCCGCCC
GCACCTGCAGCCCCGCACCTGCCGCTTGCACCTGCAGCCCCGCGCTCTACCCGGTTCAAGCATGGCTGACCAGGC
GCCCTTCGACACGGACGTCAACACCCTGACCCGCTTCGTCATGGAGGAGGGCAGGAAGGCCCGCGGCACGGGCGA
GTTGACCCAGCTGCTCAACTCGCTCTGCACAGCAGTCAAAGCCATCTCTTCGGCGGTGCGCAAGGCGGGCATCGC
GCACCTCTATGGCATTGCTGGTTCTACCAACGTGACAGGTGATCAAGTTAAGAAGCTGGACGTCCTCTCCAACGA
CCTGGTTATGAACATGTTAAAGTCATCCTTTGCCACGTGTGTTCTCGTGTCAGAAGAAGATAAACACGCCATCAT
AGTGGAACCGGAGAAAAGGGGTAAATATGTGGTCTGTTTTGATCCCCTTGATGGATCTTCCAACATCGATTGCCT
TGTGTCCGTTGGAACCATTTTTGGCATCTATAGAAAGAAATCAACTGATGAGCCTTCTGAGAAGGATGCTCTGCA
ACCAGGCCGGAACCTGGTGGCAGCCGGCTACGCACTGTATGGCAGTGCCACCATGCTGGTCCTTGCCATGGACTG
TGGGGTCAACTGCTTCATGCTGGACCCGGCCATCGGGGAGTTCATTTTGGTGGACAAGGATGTGAAGATAAAAAA
GAAAGGTAAAATCTACAGCCTTAACGAGGGCTACGCCAGGGACTTTGACCCTGCCGTCACTGAGTACATCCAGAG
GAAGAAGTTCCCCCCAGATAATTCAGCTCCTTATGGGGCCCGGTATGTGGGCTCCATGGTGGCTGATGTTCATCG
CACTCTGGTCTACGGAGGGATATTTCTGTACCCCGCTAACAAGAAGAGCCCCAATGGAAAGCTGAGACTGCTGTA
CGAATGCAACCCCATGGCCTACGTCATGGAGAAGGCTGGGGGAATGGCCACCACTGGGAAGGAGGCCGTGTTAGA
CGTCATTCCCACAGACATTCACCAGAGGGCGCCGGTGATCTTGGGATCCCCCGACGACGTGCTCGAGTTCCTGAA
GGTGTATGAGAAGCACTCTGCCCAGTGAGCACCTGCCCTGCCTGCATCCGGAGAATTGCCTCTACCTGGACCTTT
TGTCTCACACAGCAGTACCCTGACCTGCTGTGCACCTTACATTCCTAGAGAGCAGAAATAAAAAGCATGACTATT
TCCACCATCAAATGCTGTAGAATGCTTGGCACTCCCTAACCAAATGCTGTCTCCATAATGCCACTGGTGTTAAGA
TATATTTTGAGTGGATGGAGGAGAAATAAACTTATTCCTCCTTAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAA
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FIGURE 1494

MADQAPFDTDVNTLTRFVMEEGRKARGTGELTQLLNSLCTAVKAISSAVRKAGIAHLYGIAGSTNVTGDQVKKLD
VLSNDLVMNMLKSSFATCVLVSEEDKHAIIVEPEKRGKYVVCFDPLDGSSNIDCLVSVGTIFGIYRKKSTDEPSE
KDALQPGRNLVAAGYALYGSATMLVLAMDCGVNCFMLDPAIGEFILVDKDVKIKKKGKIYSLNEGYARDFDPAVT
EYIQRKKFPPDNSAPYGARYVGSMVADVHRTLVYGGIFLYPANKKSPNGKLRLLYECNPMAYVMEKAGGMATTGK
EAVLDVIPTDIHQRAPVILGSPDDVLEFLKVYEKHSAQ

FIGURE 1495

GGCACGAGGGAGCA**ATG**GAGCTTACCATCTTTATCCTGAGACTGGCCATTTACATCCTGACATTTCCCTTGTACC
TGCTGAACTTTCTGGGCTTGTGGAGCTGGATATGCAAAAAATGGTTCCCCTACTTCTTGGTGAGGTTCACTGTGA
TATACAACGAACAGATGGCAAGCAAGAAGCGGGAGCTCTTCAGTAACCTGCAGGAGTTTGCGGGCCCCTCCGGGA
AACTCTCCCTGCTGGAAGTGGGCTGTGGCACGGGGGCCAACTTCAAGTTCTACCCACCTGGGTGCAGGGTGACCT
GTATTGACCCCAACCCCAACTTTGAGAAGTTTTTGATCAAGAGCATTGCAGAGAACCGACACCTGCAGTTTGAGC
GCTTTGTGGTAGCTGCCGGGGGAGAACATGCACCAGGTGGCTGATGGCTCTGTGGATGTGGTGGTCTGCACCCTGG
TGCTGTGCTCTGTGAAGAACCAGGAGCGGATTCTCCGCGAGGTGTGCAGAGTGCTGAGACCGGGAGGGGCTTTCT
ATTTCATGGAGCATGTGGCAGCTGAGTGTTCGACTTGGAATTACTTCTGGCAACAAGTCCTGGATCCTGCCTGGC
ACCTTCTGTTTGATGGGTGCAACCTGACCAGAGAGAGCTGGAAGGCCCTGGAGCGGGCCAGCTTCTCTAAGCTGA
AGCTGCAGCACATCCAGGCCCCACTGTCCTGGGAGTTGGTGCGCCCTCATATCTATGGATATGCTGTGAAA**TAGT**
GTGAGCTGGCAGTTAAGAGCTGAATGGCTCAAAGAATTTAAAGCTTCAGTTTTACATTTAAAATGCTAAGTGGGA
GAAGAGAAACCTTTTTTTTGGGGGGCGGTTTTTTTGGTTTGTTGTTGGTTTTTTTTTTTTTTGGCGGGAAGAA
AGAGTTTTGCTCTTGTTGCCCAGGCTGGAGTGCAATGGCGTGGTCTCCGCTCACTGCAACCTCCACCTCGCGGGT
TTAGGCGATTCTTCTGCCTCAGCCTCCCTAGTAGCTGGGATTACAGGTGCCCACCACCATGCCCAGCTAATTTGT
ATTTTTAGTTGAGACAGGGTTTCACTACGTTGGCCAGGCTGGTCTTGAACTCCTGATCTCAGGCAATCCACCCAC
CTCAGCCTCCCAAAGTGCTGGGATGACAGGCGTGAGCAACCGCACCCAGCTTAAGGTTTTTTTGTTTTGTTTTGA
GACGGAGTTTTCGCTCTTGTTGCCCAGGCTGGAGTGCAATGCTGTGATCTCAGCTTACCACAACCTCCACCTCCC
GGGTTCAGGTGATTCACCTGCCTCAGCCTCCTGAGTGGCTGGTATTACAGGCATGCGTCACCACGCCGGCTAATT
TTGTACTTTTAGTAGAGATGGTGTTTCCCCACGTTGGTCAGTCTGGTCTCAAATTCCTGACCTCAGGTGATCTGC
CTGCCTCGGCCTCCCAAAGTGCTGTGATTACAGACGTCAGCCACCATGCCTGGCCTGAAACCTTTTTTAGGTAAA
GTTGAATTCCATCCTTAAAAGTTTCTGTTATATCCTATTTAGCCATTTTCTATTGTCTCCCAAAGAATTCACATC
AAAAAAACAGCTTTGAACTCCCCCTTCAAAGGAAACAGTCGACTTTCATAATTAGCATCTACCATTATCCCCAAA
TCTTATTTATTCATTGACTTGAAATTTTTTCCAATTGCTTTTTTTTTTTTTTTTTAAGGTTAAGAGCAGAGG
TTTACTAGGCCAAAGAAAGAGAATAGCTCTCTGTTGCAGAGAGGGGTCCTGGAGAAATGGGTTACCCCAGTTGTC
TTATTTAAATGGTTACCCATCAGATTTTAATTTTATCTTCTCTTTGAGAGCTTGGTAATAAGAAGCACTTAAATC
ACTCCAAAGAAGACTTTAAAAAGGGAGCAGTGAAAAGGTCTTAATAATTTATTGATTGAATTAAGAAATACTAGC
TAATTAAGAATCTGAGTCTAAACAGCACAGATTTTTTCTTTCTGCTTTTAAATTGTGTTTTAAAAAAAGAGACAG
GGGGCTGGGCGTGGTGGCTCACGCCTGTAATCCṬAGCACTTTGGGAGGCCGAGGCGGGTGGATCACGAGGTAGGA
GTTAAAGACCAGCCTGGCCAACATGGCAAAACCCTACTAAAGATACAAAAAAAAAAAAAAATTGGCCAGGCGTGG
TGGTGGGTGCCTGTAATCCCAGGTACTTGGAAGGCTGAGGCAGGAGAATCTCTTGAACCCAGAAGGCGAAGGTTG
CAGTGAACCGAGATCATGCCATTGTACTCTAGCCTGGGTGACAAGAGCAAGACTCCGTCTCAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAA

FIGURE 1496

MELTIFILRLAIYILTFPLYLLNFLGLWSWICKKWFPYFLVRFTVIYNEQMASKKRELFSNLQEFAGPSGKLSLL
EVGCGTGANFKFYPPGCRVTCIDPNPNFEKFLIKSIAENRHLQFERFVVAAGENMHQVADGSVDVVVCTLVLCSV
KNQERILREVCRVLRPGGAFYFMEHVAAECSTWNYFWQQVLDPAWHLLFDGCNLTRESWKALERASFSKLKLQHI
QAPLSWELVRPHIYGYAVK

FIGURE 1497

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AAGCTTGCACGAGGCCGACAGCCTCAGCCGGGCTGCGACTGTCTTGGCAACTGTGTTGCTCTTGTCCTTCGGCAG
CGTGGCCGCTAGTCATATCGAGGATCAAGCAGAACAATTCTTTAGAAGTGGCCATACAAACAACTGGGCTGTTCT
GGTGTGTACATCCCGATTCTGGTTTAATTATCGACATGTTGCAAATACCCTTTCTGTTTATAGAAGTGTCAAGAG
GCTAGGTATTCCTGACAGTCACATTGTCCTAATGCTTGCAGATGATATGGCCTGTAATCCTAGAAATCCCAAACC
AGCTACAGTGTTTAGTCACAAGAATATGGAACTAAATGTGTATGGAGATGATGTGGAAGTGGATTATAGAAGTTA
TGAGGTAACTGTGGAGAATTTTTTACGGGTATTAACTGGGAGGATCCCACCTAGTACTCCTCGGTCAAAACGTCT
TCTTTCTGATGACAGAAGCAATATTCTAATTTATATGACAGGGCATGGTGGAAATGGTTTCTTAAAATTTCAAGA
TTCTGAAGAAATTACCAACATAGAACTCGCGGATGCTTTTGAACAAATGTGGCAGAAAAGACGCTACAATGAGCT
ACTGTTTATTATTGATACTTGCCAAGGAGCATCCATGTATGAACGATTTTATTCTCCTAACATAATGGCTCTAGC
TAGTAGTCAAGTGGGAGAAGATTCACTCTCGCATCAACCTGATCCTGCAATTGGAGTCCATCTTATGGATAGATA
CACATTTTATGTCTTGGAATTTTTGGAAGAAATTAACCCAGCTAGCCAAACTAATATGAATGACCTTTTTCAGGT
ATGTCCCAAAAGTCTGTGTGTGTCTACTCCTGGACATCGCACTGATCTTTTTCAGAGGGATCCTAAAAATGTACT
GATAACTGATTTCTTTGGAAGTGTACGGAAAGTGGAAATTACAACAGAGACTATTAAATTGCAACAGGATTCAGA
AATCATGGAAAGCAGCTATAAGGAAGACCAGATGGATGAGAAACTAATGGAACCTCTGAAATATGCTGAACAACT
TCCTGTAGCTCAGATAATACACCAGAAACCGAAGCTGAAGACTGGCATCCTCCTGGGGGCTTTATTCTGGGATT
ATGGGCACTTATTATCATGGTTTTCTTCAAAACTTATGGAATTAAGCATATGAAGTTCATTTTT**TAG**ACTTGATG
ATGAATGAAGAATGCATGGAGGACTGCAAACTTGGATAATAATTTATGTCATTATATATTTTTAAAAATGTGTTT
CTCTTGTATGAATTGGAAATAAGTATAAGGAAACTAAATTTGAATCAACTATTAATTTTATAACTTAAAGAAAAA
TAATTGTTAATGCAACTGCTTAATGGCACTAAATATATTCCAGTTTTGTATTTTGTGTATTATAAAAGCGAATGA
GACAGAGATCAGAATACATTGACTGTTTTTGAAAATAGTAATTTCCCCTTATCCCCTTTTCATTTGGAAAAGAAA
CAATTGTGAAGACATTAAATTCTCACTAACAGAA
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FIGURE 1498

SLHEADSLSRAATVLATVLLLSFGSVAASHIEDQAEQFFRSGHTNNWAVLVCTSRFWFNYRHVANTLSVYRSVKR
LGIPDSHIVLMLADDMACNPRNPKPATVFSHKNMELNVYGDDVEVDYRSYEVTVENFLRVLTGRIPPSTPRSKRL
LSDDRSNILIYMTGHGGNGFLKFQDSEEITNIELADAFEQMWQKRRYNELLFIIDTCQGASMYERFYSPNIMALA
SSQVGEDSLSHQPDPAIGVHLMDRYTFYVLEFLEEINPASQTNMNDLFQVCPKSLCVSTPGHRTDLFQRDPKNVL
ITDFFGSVRKVEITTETIKLQQDSEIMESSYKEDQMDEKLMEPLKYAEQLPVAQIIHQKPKLKDWHPPGGFILGL
WALIIMVFFKTYGIKHMKFIF

FIGURE 1499A

CCTGGGTCCTCTCGGCGCCAGAGCCGCTCTCCGCATCCCAGGACAGCGGTGCGGCCCTCGGCCGGGGCGCCCACT
CCGCAGCAGCCAGCGAGCCAGCTGCCCCGT**ATG**ACCGCGCCGGGCGCCGCCGGGCGCTGCCCTCCCACGACATGG
CTGGGCTCCCTGCTGTTGTTGGTCTGTCTCCTGGCGAGCAGGAGTATCACCGAGGAGGTGTCGGAGTACTGTAGC
CACATGATTGGGAGTGGACACCTGCAGTCTCTGCAGCGGCTGATTGACAGTCAGATGGAGACCTCGTGCCAAATT
ACATTTGAGTTTGTAGACCAGGAACAGTTGAAAGATCCAGTGTGCTACCTTAAGAAGGCATTTCTCCTGGTACAA
GACATAATGGAGGACACCATGCGCTTCAGAGATAACACCGCCAATCCCATCGCCATTGTGCAGCTGCAGGAACTC
TCTTTGAGGCTGAAGAGCTGCTTCACCAAGGATTATGAAGAGCATGACAAGGCCTGCGTCCGAACTTTCTATGAG
ACACCTCTCCAGTTGCTGGAGAAGGTCAAGAATGTCTTTAATGAAACAAAGAATCTCCTTGACAAGGACTGGAAT
ATTTTCAGCAAGAACTGCAACAACAGCTTTGCTGAATGCTCCAGCCAAGATGTGGTGACCAAGCCTGATTGCAAC
TGCCTGTACCCCAAAGCCATCCCTAGCAGTGACCCGGCCTCTGTCTCCCCTCATCAGCCCCTCGCCCCCTCCATG
GCCCCTGTGGCTGGCTTGACCTGGGAGGACTCTGAGGGAACTGAGGGCAGCTCCCTCTTGCCTGGTGAGCAGCCC
CTGCACACAGTGGATCCAGGCAGTGCCAAGCAGCGGCCACCCAGGAGCACCTGCCAGAGCTTTGAGCCGCCAGAG
ACCCCAGTTGTCAAGGACAGCACCATCGGTGGCTCACCACAGCCTCGCCCCTCTGTCGGGGCCTTCAACCCCGGG
ATGGAGGATATTCTTGACTCTGCAATGGGCACTAATTGGGTCCCAGAAGAAGCCTCTGGAGAGGCCAGTGAGATT
CCCGTACCCCAAGGGACAGAGCTTTCCCCCTCCAGGCCAGGAGGGGGCAGCATGCAGACAGAGCCCGCCAGACCC
AGCAACTTCCTCTCAGCATCTTCTCCACTCCCTGCATCAGCAAAGGGCCAACAGCCGGCAGATGTAACTGCTACA
GCCTTGCCCAGGGTGGGCCCCGTGATGCCCACTGGCCAGGACTGGAATCACACCCCCCAGAAGACAGACCATCCA
TCTGCCCTGCTCAGAGACCCCCCGGAGCCAGGCTCTCCCAGGATCTCATCACTGCGCCCCCAGGCCCTCAGCAAC
CCCTCCACCCTCTCTGCTCAGCCACAGCTTTCCAGAAGCCACTCCTCGGGCAGCGTGCTGCCCCTTGGGGAGCTG
GAGGGCAGGAGGAGCACCAGGGATCGGACGAGCCCCGCAGAGCCAGAAGCAGCACCAGCAAGTGAAGGGGCAGCC
AGGCCCCTGCCCCGTTTTAACTCCGTTCCTTTGACTGACACAGGCCATGAGAGGCAGTCCGAGGGATCCTCCAGC
CCGCAGCTCCAGGAGTCTGTCTTCCACCTGCTGGTGCCCAGTGTCATCCTGGTCTTGCTGGCTGTCGGAGGCCTC
TTGTTCTACAGGTGGAGGCGGCGGAGCCATCAAGAGCCTCAGAGAGCGGATTCTCCCTTGGAGCAACCAGAGGGC
AGCCCCCTGACTCAGGATGACAGACAGGTGGAACTGCCAGTG**TAG**AGGGAATTCTAAGCTGGACGCACAGAACAG
TCTCTTCGTGGGAGGAGACATTATGGGGCGTCCACCACCACCCCTCCCTGGCCATCCTCCTGGAATGTGGTCTGC
CCTCCACCAGAGCTCCTGCCTGCCAGGACTGGACCAGAGCAGCCAGGCTGGGGCCCCTCTGTCTCAACCCGCAGA
CCCTTGACTGAATGAGAGAGGCCAGAGGATGCTCCCCATGCTGCCACTATTTATTGTGAGCCCTGGAGGCTCCCA
TGTGCTTGAGGAAGGCTGGTGAGCCCGGCTCAGGACCCTCTTCCCTCAGGGGCTGCAGCCTCCTCTCACTCCCTT
CCATGCCGGAACCCAGGCCAGGGACCCACCGGCCTGTGGTTTGTGGGAAAGCAGGGTGCACGCTGAGGAGTGAAA
CAACCCTGCACCCAGAGGGCCTGCCTGGTGCCAAGGTATCCCAGCCTGGACAGGCATGGACCTGTCTCCAGACAG
AGGAGCCTGAAGTTCGTGGGGCGGGACAGCCTCGGCCTGATTTCCCGTAAAGGTGTGCAGCCTGAGAGACGGGAA
GAGGAGGCCTCTGCACCTGCTGGTCTGCACTGACAGCCTGAAGGGTCTACACCCTCGGCTCACCTAAGTCCCTGT
GCTGGTTGCCAGGCCCAGAGGGGGAGGCCAGCCCTGCCCTCAGGACCTGCCTGACCTGCCAGTGATGCCAAGAGGG
GGATCAAGCACTGGCCTCTGCCCCTCCTCCTTCCAGCACCTGCCAGAGCTTCTCCAGCAGGCCAAGCAGAGGCTC
CCCTCATGAAGGAAGCCATTGCACTGTGAACACTGTACCTGCCTGCTGAACAGCCTCCCCCCGTCCATCCATGAG
CCAGCATCCGTCCGTCCTCCACTCTCCAGCCTCTCCCCAGCCTCCTGCACTGAGCTGGCCTCACCAGTCGACTGA
GGGAGCCCCTCAGCCCTGACCTTCTCCTGACCTGGCCTTTGACTCCCCGGAGTGGAGTGGGGTGGGAGAACCTCC
TGGGCCGCCAGCCAGAGCCGCTCTTTAGGCTGTGTTCTTCGCCCAGGTTTCTGCATCTTCCACTTTGACATTCCC
AAGAGGGAAGGGACTAGTGGGAGAGAGCAAGGGAGGGGAGGGCACAGACAGAGAGCCTACAGGGCGAGCTCTGAC
TGAAGATGGGCCTTTGAAATATAGGTATGCACCTGAGGTTGGGGGAGGGTCTGCACTCCCAAACCCCAGCGCAGT
GTCCTTTCCCTGCTGCCGACAGGAACCTGGGGCTGAGCAGGTTATCCCTGTCAGGAGCCCTGGACTGGGCTGCAT
CTCAGCCCCACCTGCATGGTATCCAGCTCCCATCCACTTCTCACCCTTCTTTCCTCCTGACCTTGGTCAGCAGTG
ATGACCTCCAACTCTCACCCACCCCCTCTACCATCACCTCTAACCAGGCAAGCCAGGGTGGGAGAGCAATCAGGA
GAGCCAGGCCTCAGCTTCCAATGCCTGGAGGGCCTCCACTTTGTGGCCAGCCTGTGGTGCTGGCTCTGAGGCCTA
GGCAACGAGCGACAGGGCTGCCAGTTGCCCCTGGGTTCCTTTGTGCTGCTGTGTGCCTCCTCTCCTGCCGCCCTT
TGTCCTCCGCTAAGAGACCCTGCCCTACCTGGCCGCTGGGCCCCGTGACTTTCCCTTCCTGCCCAGGAAAGTGAG
GGTCGGCTGGCCCCACCTTCCCTGTCCTGATGCCGACAGCTTAGGGAAGGGCACTGAACTTGCATATGGGGCTTA
GCCTTCTAGTCACAGCCTCTATATTTGATGCTAGAAAACACATATTTTTAAATGGAAGAAAAATAAAAAGGCATT

FIGURE 1499B

CCCCCTTCATCCCCCTACCTTAAACATATAATATTTTAAAGGTCAAAAAAGCAATCCAACCCACTGCAGAAGCTC
TTTTTGAGCACTTGGTGGCATCAGAGCAGGAGGAGCCCCAGAGCCACCTCTGGTGTCCCCCAGGCTACCTGCTCA
GGAACCCCTTCTGTTCTCTGAGAACTCAACAGAGGACATTGGCTCACGCACTGTGAGATTTTGTTTTTATACTTG
CAACTGGTGAATTATTTTTTATAAAGTCATTTAAATATCTATTTAAAAGATAGGAAGCTGCTTATATATTTAATA
ATAAAAGAAGTGCACAAGCTGCCGTTGACGTAGCTCGAG

FIGURE 1500

MTAPGAAGRCPPTTWLGSLLLLVCLLASRSITEEVSEYCSHMIGSGHLQSLQRLIDSQMETSCQITFEFVDQEQL
KDPVCYLKKAFLLVQDIMEDTMRFRDNTANPIAIVQLQELSLRLKSCFTKDYEEHDKACVRTFYETPLQLLEKVK
NVFNETKNLLDKDWNIFSKNCNNSFAECSSQDVVTKPDCNCLYPKAIPSSDPASVSPHQPLAPSMAPVAGLTWED
SEGTEGSSLLPGEQPLHTVDPGSAKQRPPRSTCQSFEPPETPVVKDSTIGGSPQPRPSVGAFNPGMEDILDSAMG
TNWVPEEASGEASEIPVPQGTELSPSRPGGGSMQTEPARPSNFLSASSPLPASAKGQQPADVTATALPRVGPVMP
TGQDWNHTPQKTDHPSALLRDPPEPGSPRISSLRPQALSNPSTLSAQPQLSRSHSSGSVLPLGELEGRRSTRDRT
SPAEPEAAPASEGAARPLPRFNSVPLTDTGHERQSEGSSSPQLQESVFHLLVPSVILVLLAVGGLLFYRWRRRSH
QEPQRADSPLEQPEGSPLTQDDRQVELPV

FIGURE 1501A

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GGCACGAGGCTGCGCCTCGGGGGTCGGCGTCCAGGCTCGGAGCGCGGCACGGAGACGGCGGCAGCGCTGGACTAG
GTGGCAGGCCCTGCATCATGGAAACTCTTTCTAATGCAAGTGGTACTTTTGCCATACGCCTTTTAAAGATACTGT
GTCAAGATAACCCTTCGCACAACGTGTTCTGTTCTCCTGTGAGCATCTCCTCTGCCCTGGCCATGGTTCTCCTAG
GGGCAAAGGGAAACACCGCAACCCAGATGGCCCAGGCACTGTCTTTAAACACAGAGGAAGACATTCATCGGGCTT
TCCAGTCGCTTCTCACTGAAGTGAACAAGGCTGGCACACAGTACCTGCTGAGAACGGCCAACAGGCTCTTTGGAG
AGAAACTTGTCAGTTCCTCTCAACGTTTAAGGAATCCTGTCTTCAATTCTACCATGCTGAGCTGAAGGAGCTTT
CCTTTATCAGAGCTGCAGAAGAGTCCAGGAAACACATCAACACCTGGGTCTCAAAAAAGACCGAAGGTAAAATTG
AAGAGTTGTTGCCGGGTAGCTCAATTGATGCAGAAACCAGGCTGGTTCTTGTCAATGCCATCTACTTCAAAGGAA
AGTGGAATGAACCGTTTGACGAAACATACACAAGGGAAATGCCCTTTAAAATAAACCAGGAGGAGCAAAGGCCAG
TGCAGATGATGTATCAGGAGGCCACGTTTAAGCTCGCCCACGTGGGCGAGGTGCGCGCGCAGCTGCTGGAGCTGC
CCTACGCCAGGAAGGAGCTGAGCCTGCTGGTGCTGCTGCCTGACGACGGCGTGGAGCTCAGCACGGTGGAAAAAA
GTCTCACTTTTGAGAAACTCACAGCCTGGACCAAGCCAGACTGTATGAAGAGTACTGAGGTTGAAGTTCTCCTTC
CAAAATTTAAACTACAAGAGGATTATGACATGGAATCTGTGCTTCGGCATTTGGGAATTGTTGATGCCTTCCAAC
AGGGCAAGGCTGACTTGTCGGCAATGTCAGCGGAGAGAGACCTGTGTCTGTCCAAGTTCGTGCACAAGAGTTTTG
TGGAGGTGAATGAAGAAGGCACCGAGGCAGCGGCAGCGTCGAGCTGCTTTGTAGTTGCAGAGTGCTGCATGGAAT
CTGGCCCCAGGTTCTGTGCTGACCACCCTTTCCTTTTCTTCATCAGGCACAACAGAGCCAACAGCATTCTGTTCT
GTGGCAGGTTCTCATCGCCATAAAGGGTGCACTTACCGTGCACTCGGCCATTTCCCTCTTCCTGTGTCCCCAGAT
CCCCACTACAGCTCCAAGAGGATGGGCCTAGAAAGCCAAGTGCAAAGATGAGGGCAGATTCCTTACCTGTCTGCC
CTCATGATTTGCCAGCATGAATTCATGATGCTCCACACTCGCTTATGCTACTTAATCAGAATCTTGAGAAAATAG
ACCATAATGATTCCCTGTTGTATTAAAATTGCAGTCCAAATCCCATAGGATGGCAAGCAAAGTTCTTCTAGAATT
CCACATGCAATTCACTCTGGCGACCCTGTGCTTTCCTGACACTGCGAATACATTCCTTAACCCGCTGCCTCAGTG
GTAATAAATGGTGCTAGATATTGCTACTATTTTATAGATTTCCTGGTGCTTAGCCTTATAAAAAAGGTTGTAAAA
TGTACATTTATATTTTATCTTTTTTTTTTTTTTTTTTTTCTGAGACGCAGTCTGGCTCTCTGTCGCCCAGGCTGGAG
TGCAGTGGCTCGATCTCTGCTCACTGCAAGCTCCGCCTCCCGGGTTCACGCCATTCTCCTGCCTCAGCCTCCCGA
GTAGCTGGGACTACAGGCGCCCGCCACCACGCCCGGCTAATTTTTTGTATTTTTAGTAGAGACGGGGTTTCACCG
TGTTAGCCAGGATGGTGTCGATCTCCTGACCTCGTGATCCACCCGCCTCGGCCTCCCAAAGTGCTGGGATTACAG
GCTTGAGCCACCGCGCCCGGCTATATTTTATCTTTTATCTTTTTCTTTGACATTTACCAATCACCAAGCATGCAC
CAAACACTGCTTTAGGCACTGGGGACACAAAGGGGACAGAGCCATCCTCCTTTGACACCTGGTCTTCAGTTCTGT
GCCCAACGTATATAGTTTTGACAATGACCAGGTTGGACTGTTTAATGTCTTTCAACTTACCACGTAATCCTCTTG
TAGGGATCACATCTTTCTTTATGATATTGTATTTCTCTACCTCTAACAGTAAAAATTCCATTCAACCCTTAAAGC
TCACTTCAAATTCTTCTTTGAGAAGTTTTTCCTTTCTCCGCAACCAGATGTACATATTTGAACTCTCTTTGTACT
TGGAGGGCACTTCTTTCGTGGTAGTTCTTTTATTTTTATTAATCTCTGTATCCTTAGATAGTCCTCCAACAACCA
AAGGTTGGGACTCTGTCTTACATATCTGGGTGCCCCTCATAGTGCAGTAATAAGTAAGTTGATTATATACGAGCT
ATGTAACTTATATTTTTTAATGGTTGGATATCACTGAGTTTTTTTTTTTAAGAATTTTTTTATTGAGGTAAACTT
CACATAACATAAAATTAACTATTTTAAAGTGAGAAGTTCAGTGCCACTTAGTATTGTTAACAATGTTGCATAACC
ACCACCTTTATTTAAAGTTCCAAAAAAAATGTTCTCCTCTAAAAGGAAACCCCATCCATTAAGCAGATACTCTC
CATTCCTTCCTTCCTCCAGCCCCCAGCAACCACCAATCTGCTTTCTGTCTCTATGGTTTTATCTATTCTTGCTAT
TTTATATAAATCGAATTGTATGAGACCTTTTGTGTCTGGCTTCTTTCACTTAGTACAAGTTTTTGAGATTTATTT
ACATAGTAGCATGTATCAACACTTCATTTTTATGGCCAAATAAAATTGTATTATGTGTTTATAGCACAATTTATT
TATCCACTCATTCATTGATGGACTTTGGGTTGTTTCTGACTTTTGGCTATTGGGAATAGTGCTGCTATGAATGTT
TGTGTACCTGTATTTGTTTGAATGCCTATTTTGCATTCTCTTGGGTATATATCTAGGAGTGGAACTGCTGGGTCA
TATGTTAATTCTATGTTTAGCTTTTTGAGGAACAGACAAACTGTTTTCCACAGCAGTTGAACCATTCCACATTCC
CACCAGCAATGTATGAGAATTCCAATTTCTGTCCACTTCCTCACCAACACTTATTATTTTCCTTTTCCTTTTTTT
AAAAAAAATAAGTTATGGCCATCTTAGTGGGTGTGAAGTGGTATCTCATTGTGTTTTTTATTTGCATTTCCTATG
TAATGAGCTAGAAACTAAAGTACAAACTAGATGGGACATCCAGTCCCTTTGATAGATAATGCTGAGTAAAAAATG
AGATGAAAGACATTTGTTTGTTTTTAGAACATGAGTGACAGTTGTTAAAAAGCTTTAGAGGAGGAATGAAAACA
AAGTGAAGTACACTTAGAAAAGGGCCAAGTGGACATCTTGGATGTCAAGTGCCTAGTTCAGTATCTTTTTTTTTT
TTTTTTTTTTTTTTGAGACAGTGCCTCACTCTGTCACCCAGGCTGGAGTGTAGTGGCATGATCTGGGCTCACTGC
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FIGURE 1501B

AACCTCCTCCTCCTGGATTCAAGCAATTCTCTTGCTTCAGCCTCCCAAGTAGCTGAGACTACAAGCACCCACCAC
CACACCCGGCTAATTTTGTATTTTTCAGTAGAGACGGGGTTTCGCCACATTGGCCGTGTTGGTCTTGAACTCCTG
GCCTCAAGCAATCCGCCTACCTCAGCCTCCCAAAGTGCTAGGATTACAGGCATAAGCCACTGAGCCCAGCCCTAG
TTCAGTATCTTTTATGTAAATTATAAACATCTGCAACATTATGTATCATATGCAGATACTTATTGCATTTCTTTT
ATTAGTGGTGAAAGTGTTCTATGCATTTATTGGCTCTTGAATTTCCTCATCTATGAATTGTCATTCACACACCTA
CTTTTCTGCTTCGTTTTTACATATGTCTTTGCCTATTAAAGATATTATCCCTCTGTTTTATATTTTCTCTCATTC
TTGTATTGCCTTTTAAATTTTGTTATGATGTTTCATTAATAAACAGTGTTTGTTTTCCTCTATAAAAAAAAAAA
AAAAA

FIGURE 1502

METLSNASGTFAIRLLKILCQDNPSHNVFCSPVSISSALAMVLLGAKGNTATQMAQALSLNTEEDIHRAFQSLLT
EVNKAGTQYLLRTANRLFGEKTCQFLSTFKESCLQFYHAELKELSFIRAAEESRKHINTWVSKKTEGKIEELLPG
SSIDAETRLVLVNAIYFKGKWNEPFDETYTREMPFKINQEEQRPVQMMYQEATFKLAHVGEVRAQLLELPYARKE
LSLLVLLPDDGVELSTVEKSLTFEKLTAWTKPDCMKSTEVEVLLPKFKLQEDYDMESVLRHLGIVDAFQQGKADL
SAMSAERDLCLSKFVHKSFVEVNEEGTEAAAASSCFVVAECCMESGPRFCADHPFLFFIRHNRANSILFCGRFSS
P

FIGURE 1503A

GTAGCTGCTTTGCAGGTACATCATGTGACAGTGGAATTATAGAAGATGTGAAGAAAACAACACACACTCCAACAC
TAAAAGCATGATGTAGCTGCTTTGCAGGTAAAAGAAGCAGCTACATC**ATG**CTTTTAGTGTTGGAGTGTGTGTTGT
TTCTGTGGCTCAGGGGTATTTTAGAATGGACTCTTCTGCAACCCAGTTTCACATAGAGACTCATGAGAACACAT
CAGGACTTTGGTCAATATGGTACCGCAACCATTTTGACCGTAGTGTTGTATTAAATGATGTGTTTCTTTCCAAGG
AGACCAAGCACATGTTAAAGATTCTGAATTTCACTGGCCCTTTATTTCTACCTCCAGGCTGTTGGAATATATTTT
CTTTGAAACTTGCTGTTAAAGACATTGCCATAAATCTATTCACCAATGTATTTTTGACTACAAACATAGGTGCCA
TTTTTGCAATACCTCTACAGATTTATTCAGCACCAACCAAGGAAGGGAGTCTGGGTTTTGAAGTGATAGCACATT
GTGGCATGCATTATTTCATGGGAAAATCAAAAGCAGGAAATCCTAATTGGAATGGGAGCCTTTCTCTGGATCAAT
CTACCTGGAATGTGGATTCTGAACTTGCAAATAAATTGTATGAAGATGGAAGAAATATAAAAATGGTGACGTCT
GCAAGAGGAATGTTTTGGGAACAACTCGATTTGCTCACTTGAAGAAATCCAAGGAGTCAGAGTCCTTTGTTTTCT
TTTTGCCTCGTTTGATCGCAGAGCCTGGCCTCATGTTAAACTTCAGCGCAACTGCCCTTAGGAGCAGGATGATCA
AGTACTTTGTGGTGCAGAACCCGTCCTCTTGGCCGGTCTCCTTGCAGCTCCTGCCTCTCTCCTTGTACCCTAAAC
CCGAAGCCCTAGTGCACCTGCTCCACAGATGGTTTGGCACTGATATGCAGATGATTAATTTCACAACTGGTGAAT
TCCAGCTCACCGAAGCTTGCCCTTACCTGGGTACGCATTCTGAGGAATCCAGGTTTGGCATCCTCCACTTACATC
TGCAGCCTTTGGAAATGAAAAGGGTTGGCGTAGTTTTCACACCTGCTGACTATGGAAAAGTTACCTCACTCATAC
TAATCCGGAATAACTTGACTGTTATTGACATGATTGGCGTGGAAGGATTTGGAGCAAGAGAGTTATTAAAAGTGG
GTGGAAGACTTCCTGGTGCAGGAGGCTCACTCCGATTAAGGTGCCCGAGTCCACGCTGATGGACTGCCGTAGAC
AACTGAAAGACAGTAAGCAAATTTTATCTATTACAAAGAACTTTAAAGTTGAGAATATTGGACCTCTTCCTATAA
CTGTTTCGTCTCTGAAAATTAATGGGTATAACTGCCAAGGTTATGGATTCGAGGTGCTGGATTGTCATCAGTTTT
CCCTGGACCCAAACACATCCCGCGATATCAGCATTGTGTTCACTCCAGACTTTACCTCCTCCTGGGTAATTCGGG
ACCTAAGTCTTGTAACCGCAGCGGACCTAGAATTTCGCTTCACTCTCAATGTGACTCTCCCTCATCACCTGTTGC
CCTTGTGTGCAGACGTGGTTCCAGGACCCAGCTGGGAGGAGTCATTTTGGAGGCTCACGGTCTTCTTTGTCAGTT
TGTCCCTGTTGGGTGTGATTTTAATAGCCTTCCAACAAGCACAGTACATTCTCATGGAATTCATGAAAACAAGAC
AGAGGCAAAATGCTAGCTCCTCTTCACAGCAAAACAATGGTCCTATGGATGTAATCAGCCCCCATTCTTACAAAA
GCAATTGCAAGAACTTTCTCGATACATATGGCCCCTCTGATAAAGGCAGGGGGAAGAACTGCCTTCCAGTGAACA
CTCCCCAAAGCAGGATCCAGAATGCTGCAAAGAGGAGCCCAGCCACCTATGGTCATTCTCAGAAGAAGCACAAAT
GCTCAGTGTATTACAGTAAACACAAAACCAGCACAGCTGCGGCCAGCAGCACCAGCACGACTACTGAGGAAAAAC
AGACTTCACCCCTGGGCAGCTCACTGCCTGCTGCTAAAGAGGACATTTGCACTGATGCCATGCGTGAGAACTGGA
TCAGCCTCAGATATGCAAGTGGCATAAATGTCAACCTGCAGAAGAATTTAACCCTTCCCAAAAACTTACTGAATA
AAGAAGAAAACACACTGAAAAACACAATTGTTTTCAGTAATCCTTCTTCAGAATGTAGTATGAAGGAGGGAATAC
AGACATGTATGTTTCCTAAGGAAACTGACATTAAAACTTCAGAGAACACAGCCGAGTTCAAGGAACGGGAGCTCT
GTCCACTGAAGACCTCCAAGAAACTACCTGAAAACCATTTACCAAGAAACTCACCTCAGTACCACCAGCCAGACT
TGCCAGAAATTTCCAGGAAAAATAATGGGAATAACCAGCAAGTACCTGTCAAGAATGAAGTAGATCATTGTGAAA
ATTTGAAGAAGGTGGACACAAAGCCTTCTTCAGAAAAGAAGATTCACAAAACATCTAGAGAAGACATGTTTTCTG
AGAAACAGGACATACCTTTCGTAGAGCAAGAAGATCCTTATAGGAAGAAAAAGCTTCAGGAGAAAAGAGAAGGAA
ATTTACAAAATTTAAATTGGAGTAAAAGTCGAACATGTAGAAAGAACAAGAAAAGGGGTGTTGCTCCAGTCTCAA
GGCCTCCTGAACAGAGTGATCTAAAGCTTGTGTGCAGTGACTTTGAGAGGTCTGAGCTGAGCAGTGACATCAATG
TAAGAAGCTGGTGTATACAGGAAAGCACTAGGGAGGTTTGTAAAGCAGATGCCGAAATTGCAAGCAGTTTACCTG
CTGCCCAGAGAGAGGCAGAAGGTTACTACCAGAAGCCTGAGAAGAATGTGTGGACAAGTTCTGCTCCGATTCCA
GCTCTGACTGTGGGAGCTCCTCTGGCAGCGTGCGTGCCAGCCGGGGCAGCTGGGGGAGCTGGAGCAGCACCAGCA
GCTCCGACGGGGATAAGAAGCCCATGGTGGACGCCCAGCACTTCCTGCCGGCCGGAGACAGTGTTTCACAAAATG
ATTTTCCTTCTGAAGCTCCCATCTCCTTGAATCTTTCTCATAACATCTGCAATCCATGACCGTGAATAGTCTCC
CACAATACGCAGAGCCTTCCTGTCCCAGCCTTCCTGCCGGGCCCACAGGTGTTGAAGAAGATAAAGGTCTTTACT
CACCTGGAGACCTGTGGCCCACTCCGCCAGTGTGTGTGACAAGCAGCTTAAACTGCACCCTGGAGAACGGCGTGC
CTTGTGTGATTCAGGAGTCGGCCCCGGTTCATAATAGTTTCATTGATTGGAGTGCAACATGCGAAGGCCAGTTTT
CCAGCGCATACTGTCCATTGGAATTGAACGATTACAATGCCTTTCCAGAAGAAAACATGAACTATGCCAATGGCT
TCCCCTGTCCTGCAGATGTTCAGACAGACTTTATTGATCACAACTCTCAGTCTACCTGGAACACCCCACCCAACA
TGCCTGCTGCCTGGGGACATGCCAGTTTCATCAGCTCTCCGCCCTACCTCACAAGCACCCGAAGCTTGTCTCCAA

FIGURE 1503B

TGTCTGGACTTTTTGGTTCCATCTGGGCCCCGCAAAGCGATGTGTATGAAAATTGCTGCCCCATCAACCCCACCA
CGGAACATTCGACCCACATGGAAAACCAAGCGGTCGTGTGCAAGGAATACTACCCGGGGTTCAACCCGTTTCGCG
CCTATATGAACCTGGACATATGGACTACCACAGCGAATAGGAATGCAAATTTCCCACTGTCTAGAGACTCGAGTT
ACTGTGGGAATGTG**TGA**AAATAATTGGATTTTTAAACAATGTGAATAAAGAGGCTTGTGTTTTGAAAAAAAAAAA
AAAAAA

FIGURE 1504

MLLVLECVLFSVAQGYFRMDSSATQFHIETHENTSGLWSIWYRNHFDRSVVLNDVFLSKETKHMLKILNFTGPLF
LPPGCWNIFSLKLAVKDIAINLFTNVFLTTNIGAIFAIPLQIYSAPTKEGSLGFEVIAHCGMHYFMGKSKAGNPN
WNGSLSLDQSTWNVDSELANKLYERWKKYKNGDVCKRNVLGTTRFAHLKKSKESESFVFFLPRLIAEPGLMLNFS
ATALRSRMIKYFVVQNPSSWPVSLQLLPLSLYPKPEALVHLLHRWFGTDMQMINFTTGEFQLTEACPYLGTHSEE
SRFGILHLHLQPLEMKRVGVVFTPADYGKVTSLILIRNNLTVIDMIGVEGFGARELLKVGGRLPGAGGSLRFKVP
ESTLMDCRRQLKDSKQILSITKNFKVENIGPLPITVSSLKINGYNCQGYGFEVLDCHQFSLDPNTSRDISIVFTP
DFTSSWVIRDLSLVTAADLEFRFTLNVTLPHHLLPLCADVVPGPSWEESFWRLTVFFVSLSLLGVILIAFQQAQY
ILMEFMKTRQRQNASSSSQQNNGPMDVISPHSYKSNCKNFLDTYGPSDKGRGKNCLPVNTPQSRIQNAAKRSPAT
YGHSQKKHKCSVYYSKHKTSTAAASSTSTTTEEKQTSPLGSSLPAAKEDICTDAMRENWISLRYASGINVNLQKN
LTLPKNLLNKEENTLKNTIVFSNPSSECSMKEGIQTCMFPKETDIKTSENTAEFKERELCPLKTSKKLPENHLPR
NSPQYHQPDLPEISRKNNGNNQQVPVKNEVDHCENLKKVDTKPSSEKKIHKTSREDMFSEKQDIPFVEQEDPYRK
KKLQEKREGNLQNLNWSKSRTCRKNKKRGVAPVSRPPEQSDLKLVCSDFERSELSSDINVRSWCIQESTREVCKA
DAEIASSLPAAQREAEGYYQKPEKKCVDKFCSDSSSDCGSSSGSVRASRGSWGSWSSTSSSDGDKKPMVDAQHFL
PAGDSVSQNDFPSEAPISLNLSHNICNPMTVNSLPQYAEPSCPSLPAGPTGVEEDKGLYSPGDLWPTPPVCVTSS
LNCTLENGVPCVIQESAPVHNSFIDWSATCEGQFSSAYCPLELNDYNAFPEENMNYANGFPCPADVQTDFIDHNS
QSTWNTPPNMPAAWGHASFISSPPYLTSTRSLSPMSGLFGSIWAPQSDVYENCCPINPTTEHSTHMENQAVVCKE
YYPGFNPFRAYMNLDIWTTTANRNANFPLSRDSSYCGNV

FIGURE 1505

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GTTTTGCCTGCTAGCATCTCCCTGTAACTCTCCCAATCTTGAGGAGTGATCCCTGTCCCAGCCCCTGGAAAGGGG
CAGGAACGACAAACTCAAAGTCCAGGATGTTCACCATGACAAGAGCCATGGAAGAGGCTCTTTTTCAGCACTTCA
TGCACCAGAAGCTGGGGATCGCCTATGCCATACACAAGCCATTTCCCTTCTTTGAAGGCCTCCTAGACAACTCCA
TCATCACTAAGAGAATGTACATGGAATCTCTGGAAGCCTGTAGAAATTTGATCCCTGTATCCAGAGTGGTGCACA
ACATTCTCACCCAACTGGAGAGGACTTTTAACCTGTCTCTTCTGGTGACATTGTTCAGTCAAATTAACCTGCGTG
AATATCCCAATCTGGTGACGATTTACAGAAGCTTCAAACGTGTTGGTGCTTCCTATGAACGGCAGAGCAGAGACA
CACCAATCCTACTTGAAGCCCCAACTGGCCTAGCAGAAGGAAGCTCCCTCCATACCCCACTGGCGCTGCCCCCAC
CACAACCCCCTCAACCAAGCTGTTCACCCTGTGCGCCAAGAGTCAGTGAGCCTGGAACATCCTCCCAGCAAAGCG
ATGAGATCCTGAGTGAGTCGCCCAGCCCATCTGACCCTGTCCTGCCTCTCCCTGCACTCATCCAGGAAGGAAGAA
GCACTTCAGTGACCAATGACAAGTTAACATCCAAAATGAATGCGGAAGAAGACTCAGAAGAGATGCCCAGCCTCC
TCACTAGCACTGTGCAAGTGGCCAGTGACAACCTGATCCCCCAAATAAGAGATAAAGAAGACCCTCAAGAGATGC
CCCACTCTCCCTTGGGCTCTATGCCAGAGATAAGAGATAATTCTCCAGAACCAAATGACCCAGAAGAGCCCCAGG
AGGTGTCCAGCACACCTTCAGACAAGAAAGGAAAGAAAAGAAAAAGATGTATCTGGTCAACTCCAAAAAGGAGAC
ATAAGAAAAAAAGCCTCCCAAGAGGGACAGCCTCATCTAGACACGGAATCCAAAAGAAGCTCAAAAGGGTGGATC
AGGTTCCTCAAAAGAAAGATGACTCAACTTGTAACTCCACGGTAGAGACAAGGGCCCAAAAGGCGAGAACTGAAT
GTGCCCGAAAGTCGAGATCAGAGGAGATCATTGATGGCACTTCAGAAATGAATGAAGGAAAGAGGTCCCAGAAGA
CGCCTAGTACACCACGAAGGGTCACACAAGGGGCAGCCTCACCTGGGCATGGCATCCAAGAGAAGCTCCAAGTGG
TGGATAAGGTGACTCAAAGGAAAGACGACTCAACCTGGAACTCAGAGGTCATGATGAGGGTCCAAAAGGCAAGAA
CTAAATGTGCCCGAAAGTCCAGATCGAAAGAAAAGAAAAAGGAGAAAGATATCTGTTCAAGCTCAAAAAGGAGAT
TTCAGAAAAATATTCACCGAAGAGGAAAACCCAAAAGTGACACTGTGGATTTTCACTGTTCTAAGCTCCCCGTGA
CCTGTGGTGAGGCGAAAGGGATTTTATATAAGAAGAAAATGAAACACGGATCCTCAGTGAAGTGCATTCGGAATG
AGGATGGAACTTGGTTAACACCAAATGAATTTGAAGTCGAAGGAAAAGGAAGGAACGCAAAGAACTGGAAACGGA
ATATACGTTGTGAAGGAATGACCCTAGGAGAGCTGCTGAAGCGGAAAAACTCGGATGAATGCGAGGTGTGCTGTC
AAGGGGGACAACTTCTCTGCTGCGGTACTTGTCCACGAGTCTTCCATGAGGACTGTCACATCCCCCCTGTGGAAG
CCAAGAGGATGCTGTGGAGTTGCACCTTCTGCAGGATGAAGAGGTCTTCAGGAAGCCAACAGTGCCATCATGTAT
CTAAGACCCTGGAGAGGCAGATGCAGCCTCAGGACCAGCTGAAATGTGAGTTCCTCCTCTTGAAGGCCTACTGTC
ATCCACAAAGCTCCTTTTTTACGGGCATCCCATTTAATATTCGAGATTACGGTGAGCCCTTTCAGGAAGCAATGT
GGTTGGACCTGGTTAAGGAAAGGCTGATTACGGAAATGTACACGGTGGCATGGTTTGTGCGAGACATGCGCCTGA
TGTTTCGCAACCATAAAACATTTTACAAGGCTTCTGACTTTGGCCAGGTAGGACTTGACTTAGAGGCAGAATTTG
AAAAAGATCTCAAAGACGTGCTCGGTTTTCATGAAGCCAATGACGGCGGTTTCTGGACTCTTCCTTGACCCTGTT
CTGTAAAGACTGAAGCATCCCCACCTCAGGATTCAGCTGATGGGACCCTGGCTTGGACTGTTGATTGCCAGTGAG
TCTGGGATGTAATTGGCTGCCCTCAGGACCCAAACCCAGACACTTCATAGGATTATCACACCCTCCATCTTTATT
CTTTCTTTTTACCTTTAAAAGTCTATATCTA
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FIGURE 1506

MFTMTRAMEEALFQHFMHQKLGIAYAIHKPFPFFEGLLDNSIITKRMYMESLEACRNLIPVSRVVHNILTQLERT
FNLSLLVTLFSQINLREYPNLVTIYRSFKRVGASYERQSRDTPILLEAPTGLAEGSSLHTPLALPPPQPPQPSCS
PCAPRVSEPGTSSQQSDEILSESPSPSDPVLPLPALIQEGRSTSVTNDKLTSKMNAEEDSEEMPSLLTSTVQVAS
DNLIPQIRDKEDPQEMPHSPLGSMPEIRDNSPEPNDPEEPQEVSSTPSDKKGKKRKRCIWSTPKRRHKKKSLPRG
TASSRHGIQKKLKRVDQVPQKKDDSTCNSTVETRAQKARTECARKSRSEEIIDGTSEMNEGKRSQKTPSTPRRVT
QGAASPGHGIQEKLQVVDKVTQRKDDSTWNSEVMMRVQKARTKCARKSRSKEKKKEKDICSSSKRRFQKNIHRRG
KPKSDTVDFHCSKLPVTCGEAKGILYKKKMKHGSSVKCIRNEDGTWLTPNEFEVEGKGRNAKNWKRNIRCEGMTL
GELLKRKNSDECEVCCQGGQLLCCGTCPRVFHEDCHIPPVEAKRMLWSCTFCRMKRSSGSQQCHHVSKTLERQMQ
PQDQLKCEFLLLKAYCHPQSSFFTGIPFNIRDYGEPFQEAMWLDLVKERLITEMYTVAWFVRDMRLMFRNHKTFY
KASDFGQVGLDLEAEFEKDLKDVLGFHEANDGGFWTLP

FIGURE 1507A

GCCGGGCAGTGGGCAGGTATGGCTGAGGGCGTGTGAGCGCCGAGCGCTAAGGGCCGCCGCCACC**ATG**CCAGGGGG
CGCAGGCGCCGCCAGGCTCTGCTTGCTGGCGTTTGCCCTGCAGCCCCTCCGGCCGCGGGCGGCGCGGGAGCCTGG
ATGGACAAGAGGAAGTGAGGAAGGCAGCCCCAAGCTGCAGCATGAACTTATCATACCTCAGTGGAAGACTTCAGA
AAGCCCCGTGAGAGAAAAGCATCCACTCAAAGCTGAGCTCAGGGTAATGGCTGAGGGGCGAGAACTGATCCTGGA
CCTGGAGAAGAATGAGCAACTTTTTGCTCCTTCCTACACAGAAACCCATTATACTTCAAGTGGTAACCCTCAAAC
CACCACACGGAAATTGGAGGATCACTGCTTTTACCACGGCACGGTGAGGGAGACAGAACTGTCCAGCGTCACGCT
CAGCACTTGCCGAGGAATTAGAGGACTGATTACGGTGAGCAGCAACCTCAGCTACGTCATCGAGCCCCTCCCTGA
CAGCAAGGGCCAACACCTTATTTACAGATCTGAACATCTCAAGCCGCCCCCGGGAAACTGTGGGTTCGAGCACTC
CAAGCCCACCACCAGGGACTGGGCTCTTCAGTTTACACAACAGACCAAGAAGCGACCTCGCAGGATGAAAAGGGA
AGATTTAAACTCCATGAAGTATGTGGAGCTTTACCTCGTGGCTGATTATTTAGAGTTTCAGAAGAATCGACGAGA
CCAGGACGCCACCAAACACAAGCTCATAGAGATCGCCAACTATGTTGATAAGTTTTACCGATCCTTGAACATCCG
GATTGCTCTCGTGGGCTTGGAAGTGTGGACCCACGGGAACATGTGTGAAGTTTCAGAGAATCCATATTCTACCCT
CTGGTCCTTTCTCAGTTGGAGGCGCAAGCTGCTTGCCCAGAAGTACCATGACAACGCCCAATTAATCACGGGCAT
GTCCTTCCACGGCACCACCATCGGCCTGGCCCCCCTCATGGCCATGTGCTCTGTGTACCAGTCTGGAGGAGTCAA
CATGGACCACTCCGAGAATGCCATTGGCGTGGCTGCCACCATGGCCCACGAGATGGGCCACAACTTTGGCATGAC
CCATGATTCTGCAGATTGCTGCTCGGCCAGTGCGGCTGATGGTGGGTGCATCATGGCAGCTGCCACTGGGCACCC
CTTTCCCAAAGTGTTCAATGGATGCAACAGGAGGGAGCTGGACAGGTATCTGCAGTCAGGTGGTGGAATGTGTCT
CTCCAACATGCCAGACACCAGGATGTTGTATGGAGGCCGGAGGTGTGGGAACGGGTATCTGGAAGATGGGGAAGA
GTGTGACTGTGGAGAAGAAGAGGAATGTAACAACCCCTGCTGCAATGCCTCTAATTGTACCCTGAGGCCGGGGGC
GGAGTGTGCTCACGGCTCCTGCTGCCACCAGTGTAAGCTGTTGGCTCCTGGGACCCTGTGCCGCGAGCAGGCCAG
GCAGTGTGACCTCCCGGAGTTCTGTACGGGCAAGTCTCCCCACTGCCCTACCAACTTCTACCAGATGGATGGTAC
CCCCTGTGAGGGCGGCCAGGCCTACTGCTACAACGGCATGTGCCTCACCTACCAGGAGCAGTGCCAGCAGCTGTG
GGGACCCGGAGCCCGACCTGCCCCTGACCTCTGCTTCGAGAAGGTGAATGTGGCAGGAGACACCTTTGGAAACTG
TGGAAAGGACATGAATGGTGAACACAGGAAGTGCAACATGAGAGATGCGAAGTGTGGGAAGATCCAGTGTCAGAG
CTCTGAGGCCCGGCCCCTGGAGTCCAACGCGGTGCCCATTGACACCACTATCATCATGAATGGGAGGCAGATCCA
GTGCCGGGGCACCCACGTCTACCGAGGTCCTGAGGAGGAGGGTGACATGCTGGACCCAGGGCTGGTGATGACTGG
AACCAAGTGTGGCTACAACCATATTTGCTTTGAGGGGCAGTGCAGGAACACCTCCTTCTTTGAAACTGAAGGCTG
TGGGAAGAAGTGCAATGGCCATGGGGTCTGTAACAACAACCAGAACTGCCACTGCCTGCCGGGCTGGGCCCCGCC
CTTCTGCAACACACCGGGCCACGGGGGCAGTATCGACAGTGGGCCTATGCCCCCTGAGAGTGTGGGTCCTGTGGT
AGCTGGAGTGTTGGTGGCCATCTTGGTGCTGGCGGTCCTCATGCTGATGTACTACTGCTGCAGACAGAACAACAA
ACTAGGCCAACTCAAGCCCTCAGCTCTCCCTTCCAAGCTGAGGCAACAGTTCAGTTGTCCCTTCAGGGTTTCTCA
GAACAGCGGGACTGGTCATGCCAACCCAACTTTCAAGCTGCAGACGCCCCAGGGCAAGCGAAAGGTGATCAACAC
TCCGGAAATCCTGCGGAAGCCCTCCCAGCCTCCTCCCCGGCCCCCTCCAGATTATCTGCGTGGTGGGTCCCCACC
TGCACCACTGCCAGCTCACCTGAGCAGGGCTGCTAGGAACTCCCAGGGCCCGGGTCTCAAATAGAGAGGACGGA
GTCGTCCAGGAGGCCTCCTCCAAGCCGGCCAATTCCCCCCGCACCAAATTGCATCGTTTCCCAGGACTTCTCCAG
GCCTCGGCCGCCCCAGAAGGCACTCCCGGCAAACCCAGTGCCAGGCCGCAGGAGCCTCCCCAGGCCAGGAGGTGC
ATCCCCACTGCGGCCCCCTGGTGCTGGCCCTCAGCAGTCCCGGCCTCTGGCAGCACTTGCCCCAAAGTTTCCAGA
ATACAGATCACAGAGGGCTGGAGGGATGATTAGCTCGAAAATC**TAG**ACCTGTCCAAGGGGCTTCTCCCTTTCCTT
GAGCTCTCTGGACACTGCAGAGGACCCATGACCATGGAACCCTGAAGAAGCATGTCTGGCCGCCTCTGAGCTCCT
CCCACCCTCCTCCAGGAACCTCCACATCTCCAAAAATCTCCCTGTTGACTCAGTGCCTCCTCGGCTTCCTTGGAA
GCCCAGAGGGACTATGATCTGATGGCCTCTAGGTGTTGTTTTGTGCAATATACAGCCCCAGGTAGGGAGGGGAGA
GTATGAGGAGGGTGACTGGCAGCTTCTCCTCCAGACTCCTAGCCCCGAGGTGCTGATGGAGATGCTCAAGGCCAG
CAAGCCCCTCAGGCCAGCACTTCGCTTGCAGAAGCCATCCATTCACTCCTGGGGTGCAGGGCACGCAAGAGAGCT
TCCCATTGCTTCTGCTCTCCTCAGAGGTCCCGGGCTGGATGGAGGTGGTACTTACCCACCCCTTTTAGCTTTTAG
GGATTAAGGAAGGGTCAAGCCAGCCACTGCTGTGGCCCTGCCCAGGGCTTGGTTGAGGGAACGGCTTCTGGCTGT
ATGGCTGCATGTGACAAGCCACGTCCCCTCCCACCTCTCCCCAAACCCCTGCATCCCTGTATTCACACGGGTCAC
TCTGACTCAGACAGGTACTATTCGTAGGCAGTGTAGACAGCAGGAGGAGCACCGGGCTTGGGCTTCCTCTGAGCC
GTGATGCCAAAGGTTGCGACTCCTGACTCTGGATAATTTTTAGTTGCTCTTTGTTTTCTCTGCCGCACTTTCCTG

FIGURE 1507B

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GTGCCCCACGCTTTTCTCTCTTCCTTCCCCTCTCATTCTCCCTCTAATGTGTGGTGCTTTGGTGAGCAAACCCTC
AGCAGTCCTGACCTTCGGGTGACCAGGTGCTTGTGACCTACAAGTCAGAGTCCACTCTCACAGTCGGCCACTGGA
TTTCCCTCACTGGCTCTCAGGAGTGTGACCAGAGTAGACTCGGGGCATGGCCATTGGGGTCATATGTTTATTTTT
CATTGTGTTTTGTGACCTCAGCAGGGTGGGGGTCTTCCTCCTTACTCTAAGCTAAATCTAGGTGAGGTTTCCCCT
TAGGGAGCCCAGCTATTTACAAAGTACACACGAGGGAGCAGGCTGGTCATTGACTTCGGGCTGGACCGTTGCCCT
CTGAGCAGAGAACAGACCCATTTTCTGGGAGCTGCCCGAGATCACTGGAGAAGGCAGCCAGCAGCAGCTGCACTG
GAACAGTCAGAGCAGGGAGCCTCTTCCTCAACCCAGCTTTTTGTCATTCACTTCCTTTTGTTCTCTCTCTGGTCA
CTGCCCTTACCTGACCCTCACAGAAAGAGAGCTCTGAGCAGGTGAGGGGGTCTGCGGTGGCTCCTGTCTTCCCTG
CAGCAGGGAAGGAGGGCCGTGTGGTGCTTTGCTAGATAGGACGGTTTTTGCAAAGCACCTGGAGATGTTTGCTGG
GAGATAGACTCCCACTCCACAAAGGTGCTGGGTGGCTCTCCGGACAGGAGCTGGCCTGACTCTCACTCCTCTGAG
GCTTTCCTGGGGCCTCCTCCCATCCTGCCATGAGCAATTGTTTGCTCTTGAAAACCTCACTGCAAGGCTGAAGCT
GACTTCTGATTCACCACCCCAGGGCCTCCTTATAGTTCTCTGCACACAATAGGTGCTTCTTGGATGTTCTTGGGT
TTGGAAATAAGTGGAAAATACGGGATGTACCCCTGGGGGAAAAGCCTGGGTTGGGTTTAGAAAGATCTCAGGAAA
ATGAGTTTCTCTTCCCTCAGGGTGGCTGTGATACAGGTTCCCCATGTCCTTGCCGTGGGTCATCCTTGCTGTGGG
TCATCCTTGCTGTGGAGATCCATTCCCCACCTTTCCTGTGGCCCAACCTTTTATTTAAATGTGCTACCCTCTGCC
TCAAGGCTTGGTTCCTGGAAAGTAAAGGTGAAAACATCCCCTTTCACCCCTCTGCAAAACAAACAAGCAACATCC
TCAAAACCCAACCCCATGCCTCACAGAGCTTCCTGTGGCTTCTCCAGCCTTTCTCCCTCACATCAGGAGGTAGAT
AGCTCTGAAATGACAGCGCCACAGCCATAGTGACTGCATGAGCCATCTGAACCTGCAGTCCACCCTCCCTGGAAC
CACACCAGAAAGAGACCTGGGTTGTCGTTTTCTTGCTTTTTGTTTTGTTTTGTTTATTATTTTCATATCACCTC
CATCCCATAAAGTTGTACTGTGAACTGGAAGATGGTGGAATGTTTTGGAATTTGATAGACTTTCGGCAACCAGTT
CTACTAATGCTTCACTCCTGGCTCTGTTCAGGGAAGCTGCCCAGGAAGAAGACTGGCCATTATGCATCCCCTTTT
CTTTCCAGTGCCCAGTATGCTGTTTTTGAGGTGTCAAATACAAATAAATCTGGGCTTAGGGAAGGAGAGACCTTA
TTCCAAAGCATGATTGCAGAAGGGGAAAGGGAATATTGCAAAAGGGAGAGGAAGGGGCCTTATGGGAATAGTGAA
AAGGCTCAGACCGACCGATGGCAAGATCTGCAAGCGTCTCAAAGCCCAGGCAGAAAAGGACTTTTCTTTTATTGG
AAGAAGTAAACATGGCTAGAAAGAACCACGTTCAGGGAATGACGTTGTGCCCAGGGTTTTTTTTTTTTTTTTT
TTGTCTCCAGGGGAGGGGCTGTTTGCTGGCTCAGGCTGAGGATGGCCCAAAGTCCAGGGTCTGGTGGGGAGGAGG
GAAGCTTAACTCAAGTTTGGGTTAGTGAGTTAGCAAGCTCTTTGTGCAGATGGGGATGTAGGTAAATCTTTTTAA
AAGTGAAATTAACCTCCTGCCAATTTTACAACCCAAGAATTTTTTTTAAGGGCCTTGGAGCCATCTCTAAAACA
AACCTCAAGGGATTTAGTGCCCTGTCTCCCTGTCTCTAGAAGCCTTAGCCTGGGCACCTGGCTCAATCTTGTAAC
TGCCTGCTAGCCATAGATTCCTTTCAGCCTTGCTGACTTCTCCCTATAAGAGTAAAGCCTTTTTCTGCCCCAGCT
CTGAGACACTTGCAGATCTTAAGGTCTGAGACTTGCTGATTTCTGGTTGGAGTGTTTTTTTGTATTGCCATAGT
CCCTTCCCCCTGAAGCAATAGCCCCTCCCCACCTCCTGCAATACGCCTTTCCAATCTTTATTGGAAGTCTCTCCC
TGCCTACTTCCTAATTTATTCTTATTTGACAGAGGGTATGGAAGACTTGCAATTTGAAAACTGGGGACCAGTTCC
AAAGTCAGTAATTGTGTTAACCACGTGTATAACAGCTCTGCTGGACACCCAAGAAAGCCATGGGAACACCAACTG
GAAAGGTCCCCTTCCCCAGGGGAGCCTGCGAAGGAGAGGTTCTGTAGAATCCAAGCCCACATTTCCAAAGTCACC
CCCAACGCGTCCTCTCACACCGTCCACTGTGCGTTTGTATGTGTCTGGGATCCAGGGCAATGTGAATTTTCTTTT
TATTTGGGAGATTGTTCACGGAAAACAGATCTTCTTCTCTCTTGTCCACCTATTAATTGTTTACAATATTTGTAC
ATCTATGCAAAATACTTGAATGGGCCATGGTGCCTTTTTTCCTTGTTAGTATTTAATTAAAAATGAATTGTTTGT
CATTTGCAATGTTAAAAAAAAAAAA
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FIGURE 1508

MPGGAGAARLCLLAFALQPLRPRAAREPGWTRGSEEGSPKLQHELIIPQWKTSESPVREKHPLKAELRVMAEGRE
LILDLEKNEQLFAPSYTETHYTSSGNPQTTTRKLEDHCFYHGTVRETELSSVTLSTCRGIRGLITVSSNLSYVIE
PLPDSKGQHLIYRSEHLKPPPGNCGFEHSKPTTRDWALQFTQQTKKRPRRMKREDLNSMKYVELYLVADYLEFQK
NRRDQDATKHKLIEIANYVDKFYRSLNIRIALVGLEVWTHGNMCEVSENPYSTLWSFLSWRRKLLAQKYHDNAQL
ITGMSFHGTTIGLAPLMAMCSVYQSGGVNMDHSENAIGVAATMAHEMGHNFGMTHDSADCCSASAADGGCIMAAA
TGHPFPKVFNGCNRRELDRYLQSGGGMCLSNMPDTRMLYGGRRCGNGYLEDGEECDCGEEEECNNPCCNASNCTL
RPGAECAHGSCCHQCKLLAPGTLCREQARQCDLPEFCTGKSPHCPTNFYQMDGTPCEGGQAYCYNGMCLTYQEQC
QQLWGPGARPAPDLCFEKVNVAGDTFGNCGKDMNGEHRKCNMRDAKCGKIQCQSSEARPLESNAVPIDTTIIMNG
RQIQCRGTHVYRGPEEEGDMLDPGLVMTGTKCGYNHICFEGQCRNTSFFETEGCGKKCNGHGVCNNNQNCHCLPG
WAPPFCNTPGHGGSIDSGPMPPESVGPVVAGVLVAILVLAVLMLMYYCCRQNNKLGQLKPSALPSKLRQQFSCPF
RVSQNSGTGHANPTFKLQTPQGKRKVINTPEILRKPSQPPPRPPPDYLRGGSPPAPLPAHLSRAARNSPGPGSQI
ERTESSRRPPPSRPIPPAPNCIVSQDFSRPRPPQKALPANPVPGRRSLPRPGGASPLRPPGAGPQQSRPLAALAP
KFPEYRSQRAGGMISSKI

FIGURE 1509

AGAGCCGGCGCCGTCACCGCCCGCATTGCCGCTCCCAGTCCCGCGCTCGGCACGAC**ATG**AAATCCCCCGACGAGG
TGCTACGCGAGGGCGAGTTGGAGAAGCGCAGCGACAGCCTCTTCCAGCTATGGAAGAAGAAGCGCGGGGTGCTCA
CCTCCGACCGCCTGAGCCTGTTCCCCGCCAGCCCCCGCGCGCGCCCCAAGGAGCTGCGCTTCCACTCCATCCTCA
AGGTGGACTGCGTGGAGCGCACGGGCAAGTACGTGTACTTCACCATCGTCACCACCGACCACAAGGAGATCGACT
TCCGCTGCGCGGGCGAGAGCTGCTGGAACGCGGCCATCGCGCTGGCGCTCATCGATTTCCAGAACCGCCGCGCCC
TGCAGGACTTTCGCAGCCGCCAGGAACGCACCGCACCCGCCGCACCCGCCGAGGACGCCGTGGCTGCCGCGGCCG
CCGCACCCTCCGAGCCCTCGGAGCCCTCCAGGCCATCCCCGCAGCCCAAACCCCGCACGCCA**TGA**GCCCGCCGCG
GGCCATACGCTGGACGAGTCGGACCGAGGCTAGGACGTGGCCGGCGCTCTCCAGCCCTGCAGCAGAAGAACTTCC
CGTGCGCGCGGATCCTCGCTCCGTTGCACGGGCGCCTTAAGTTATTGGACTATCTAATATCTATGTATTTATTTC
GCTGGTTCTTTGTAGTCACATATTTTATAGTCTTAATATCTTGTTTTTGCATCACTGTGCCCATTGCAAATAAAT
CACTTGGCCAGTTTGCTTTTCTACCATCCGGCTGTGGCTCAGTGAGACTCCTGCTGGGAGGGTGGAGGCCCAGGA
ATGGGCGGGCAGGACACCCTCATCCAGTCCTGCGGGGCTGGTGTGAAAGGCGCTGGGAACCGGCTTTGAATGAAT
AAATGAATCGTGT

FIGURE 1510

MKSPDEVLREGELEKRSDSLFQLWKKKRGVLTSDRLSLFPASPRARPKELRFHSILKVDCVERTGKYVYFTIVTT
DHKEIDFRCAGESCWNAAIALALIDFQNRRALQDFRSRQERTAPAAPAEDAVAAAAAPSEPSEPSRPSPQPKPR
TP

FIGURE 1511

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TGCTTAAAAAAACACAACAGGATTTTCGAAGAATCCTTTCTTAGAAAACAAACAAAAAAACCAAACAAAAACGTA
CTTTCTCCCCACTAGTTTACACCACAGGAAGCGAGAGAGCTGCTGCCACTGCTGCTACCACAGGAAGACACAGCA
GGGAGAAGCCCTAGTGCCTCTGCCGGCTGCCCAGGACCTGGTATCGGCCCACAGACCAAGTCCTCCACAGAGGGC
GAGCCAGGGTGGAGAAGAGCCAGCCCAGTGACCCAAACATCCCCGATAAAACACCCACTGCTTAAGAGGCAGGCT
CGGATGGACTATAGCTTTGATACCACAGCCGAAGACCCTTGGGTTAGGATTTCTGACTGCATCAAAAACTTATTT
AGCCCCATCATGAGTGAGAACCATGGCCACATGCCTCTACAGCCCAATGCCAGCCTGAATGAAGAAGAAGGGACA
CAGGGCCACCCAGATGGGACCCCACCAAAGCTGGACACCGCCAATGGCACTCCCAAAGTTTACAAGTCAGCAGAC
AGCAGCACTGTGAAGAAAGGTCCTCCTGTGGCTCCCAAGCCAGCCTGGTTTCGCCAAAGCTTGAAAGGTTTGAGG
AATCGTGCTTCAGAGCCAAGAGGGCTCCCTGATCCTGCCTTGTCCACCCAGCCAGCACCTGCTTCCAGGGAGCAC
CTAGGATCACACATCCGGGCCTCCTCCTCCTCCTCCATCAGGCAGAGAATCAGCTCCTTTGAAACCTTTGGC
TCCTCTCAACTGCCTGACAAAGGAGCCCAGAGACTGAGCCTCCAGCCCTCCTCTGGGGAGGCAGCAAAACCTCTT
GGGAAGCATGAGGAAGGACGGTTTTCTGGACTCTTGGGGCGAGGGGCTGCACCCACTCTTGTGCCCCAGCAGCCT
GAGCAAGTACTGTCCTCGGGGTCCCCTGCAGCCTCCGAGGCCAGAGACCCAGGTGTGTCTGAGTCCCCTCCCCCA
GGGCGGCAGCCCAATCAGAAAACTTTCCCCCCTGGCCCGGACCCGCTCCTAAGGCTGCTGTCAACACAGGCTGAG
GAATCTCAAGGCCCAGTGCTCAAGATGCCTAGCCAGCGAGCACGGAGCTTCCCCCTGACCAGGTCCCAGTCCTGT
GAGACGAAGCTACTTGACGAAAGACCAGCAAACTCTATTCTATCAGCAGCCAAGTGTCATCGGCTGTCATGAAA
TCCTTGCTGTGCCTTCCATCTTCTATCTCCTGTGCCCAGACTCCCTGCATCCCCAAGGCAGGGGCATCTCCAACA
TCATCATCCAACGAAGACTCAGCTGCAAATGGTTCTGCTGAAACATCTGCCTTGGACACGGGGTTCTCGCTCAAC
CTTTCAGAGCTGAGAGAATATACAGAGGGTCTCACGGAAGCCAAGGAAGACGATGATGGGGACCACAGTTCCCTT
CAGTCTGGTCAGTCCGTTATCTCCCTGCTGAGCTCAGAAGAATTAAAAAAAACTCATCGAGGAGGTGAAGGTTCTG
GATGAAGCAACATTAAAGCAATTAGACGGCATCCATGTCACCATCTTACACAAGGAGGAAGGTGCTGGTCTTGGG
TTCAGCTTGGCAGGAGGAGCAGATCTAGAAAACAAGGTGATTACGGTTCACAGAGTGTTTCCAAATGGGCTGGCC
TCCCAGGAAGGGACTATTCAGAAGGGCAATGAGGTTCTTTCCATCAACGGCAAGTCTCTCAAGGGGACCACGCAC
CATGATGCCTTGGCCATCCTCCGCCAAGCTCGAGAGCCCAGGCAAGCTGTGATTGTCACAAGGAAGCTGACTCCA
GAGGCCATGCCCGACCTCAACTCCTCCACTGACTCTGCAGCCTCAGCCTCTGCAGCCAGTGATGTTTCTGTAGAA
TCTACAGCAGAGGCCACAGTCTGCACGGTGACACTGGAGAAGATGTCGGCAGGGCTGGGCTTCAGCCTGGAAGGA
GGGAAGGGCTCCCTACACGGAGACAAGCCTCTCACCATTAACAGGATTTTCAAAGGAGCAGCCTCAGAACAAAGT
GAGACAGTCCAGCCTGGAGATGAAATCTTGCAGCTGGGTGGCACTGCCATGCAGGGCCTCACACGGTTTGAAGCC
TGGAACATCATCAAGGCACTGCCTGATGGACCTGTCACGATTGTCATCAGGAGAAAAAGCCTCCAGTCCAAGGAA
ACCACAGCTGCTGGAGACTCCTAGGCAGGACATGCTGAAGCCAAAGCCAATAACACACAGCTAACACACAGCTCC
CATAACCGCTGATTCTCAGGGTCTCTGCTGCCGCCCCACCCAGATGGGGGAAAGCACAGGTGGGCTTCCCAGTGG
CTGCTGCCCAGGCCCAGACCTTCTAGGACGCCACCCAGCAAAAGGTTGTTCCTAAAATAAGGGCAGAGTCACACT
GGGGCAGCTGATACAAATTGCAGACTGTGTAAAAAGAGAGCTTAATGATAATATTGTGGTGCCACAAATAAAATG
GATTTATTAGAATTCCATATGACATTCATGCCTGGCTTCGCAAAATGTTTCAAGTACTGTAACTGTGTCATGATT
CACCCCCAAACAGTGACATTTATTTTTCTCATGAATCTGCAATGTGGGCAGAGATTGGAATGGGCAGCTCATCTC
TGTCCCACTTGGCATCAGCTGGCGTCATGCAAAGTCATGCAAAGGCTGGGACCACCTGAGATCATTCACTCATAC
ATCTGGCCGTTGATGTTGGCTGGGAACTCACCTGGGGCTGCTGGCCTGAATGCTTATAGGTGGCCTCTCCTTGTG
GCCTGGGCTCCTCACAACATGGTGTCTGGATTCCCAGGATGAGCATCCCAGGATCGCAAGAGCCACGTAGAAGCT
GCATCTTGTTTATACCTTTGCCTTGGAAGTTGCATGGCATCACCTCCACCATACTCCATCAGTTAGAGCTGACAC
AAACCTGCCTGGGTTTAAGGGGAGAGGAAATATTGCTGGGGTCATTTATGAAAAATACAGTTTGTCACATGAAAC
ATTTGCAAAATTGTTTTTGGTTGGATTGGAGAAGTAATCCTAGGGAAGGGTGGTGGAGCCAGTAAATAGAGGAGT
ACAGGTGAAGCACCAAGCTCAAAGCGTGGACAGGTGTGCCGACAGAAGGAACCAGCGTGTATATGAGGGTATCAA
ATAAAATTGCTACTACTTACCTACC
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FIGURE 1512

MDYSFDTTAEDPWVRISDCIKNLFSPIMSENHGHMPLQPNASLNEEEGTQGHPDGTPPKLDTANGTPKVYKSADS
STVKKGPPVAPKPAWFRQSLKGLRNRASEPRGLPDPALSTQPAPASREHLGSHIRASSSSSSIRQRISSFETFGS
SQLPDKGAQRLSLQPSSGEAAKPLGKHEEGRFSGLLGRGAAPTLVPQQPEQVLSSGSPAASEARDPGVSESPPPG
RQPNQKTFPPGPDPLLRLLSTQAEESQGPVLKMPSQRARSFPLTRSQSCETKLLDEKTSKLYSISSQVSSAVMKS
LLCLPSSISCAQTPCIPKAGASPTSSSNEDSAANGSAETSALDTGFSLNLSELREYTEGLTEAKEDDDGDHSSLQ
SGQSVISLLSSEELKKLIEEVKVLDEATLKQLDGIHVTILHKEEGAGLGFSLAGGADLENKVITVHRVFPNGLAS
QEGTIQKGNEVLSINGKSLKGTTHHDALAILRQAREPRQAVIVTRKLTPEAMPDLNSSTDSAASASAASDVSVES
TAEATVCTVTLEKMSAGLGFSLEGGKGSLHGDKPLTINRIFKGAASEQSETVQPGDEILQLGGTAMQGLTRFEAW
NIIKALPDGPVTIVIRRKSLQSKETTAAGDS

FIGURE 1513A

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CCGGGGTCCCCTTTCACCCAAGTGAGCCAGCTCAGGCTGTCTGCAAAGCCGGAGGTGCGGGCAGCTCCGGGCATT
GCATTGGTGCGGAGGCTTTTATATGCCAGAGAACCCTGAGTGTGCCCCTGACATGACAAGGAGCCGTCGTCGTTA
GGACTACCGACCAGACTCCCGGAAATCATGTTGGTAGGATCCCAGTCTTTTTCGCCTGGAGGGCCCAATGGGATC
ATTAGAAGCCAGTCCTTTGCGGGTTTCAGCGGCCTCCAGGAAAGGCGATCCAGGTGTAACTCCTTCATTGAAAAT
TCCTCCGCTCTCAAGAAGCCTCAGGCCAAACTGAAGAAAATGCACAATTTAGGCCACAAAAACAACAATCCCCCC
AAAGAGCCTCAGCCTAAAAGGGTGGAAGAAGTCTACAGGGCCTTGAAAAATGGACTTGATGAATATCTGGAGGTT
CACCAGACGGAGCTGGACAAGTTGACAGCTCAGTTAAAAGATATGAAAAGAAACTCTCGCCTGGGTGTACTGTAT
GACCTAGACAAGCAAATTAAAACAATTGAAAGATACATGAGACGCCTGGAGTTTCATATAAGTAAGGTAGATGAA
CTCTATGAAGCTTATTGTATCCAGCGACGCCTCCAGGATGGTGCCAGCAAAATGAAGCAAGCCTTCGCAACATCC
CCTGCCAGCAAAGCTGCCCGGGAGAGTCTGACAGAGATCAATCGGAGCTTCAAGGAGTACACAGAGAATATGTGC
ACCATTGAAGTGGAGCTAGAGAATCTGCTGGGAGAATTCTCCATCAAGATGAAAGGTCTGGCTGGCTTTGCACGC
CTCTGTCCTGGAGATCAATATGAAATTTTCATGAAGTATGGCCGGCAGCGGTGGAAACTGAAAGGCAAAATAGAA
GTAAATGGCAAGCAGAGCTGGGATGGAGAAGAAACAGTTTTTCTGCCCCTGATAGTTGGGTTCATCTCCATCAAG
GTCACGGAGCTCAAAGGGCTAGCAACTCACATCCTGGTAGGTAGCGTGACCTGTGAGACCAAAGAGCTGTTTGCA
GCCCGACCTCAGGTAGTGGCTGTCGACATCAATGACCTTGGTACCATCAAACTGAACCTGGAAATCACCTGGTAT
CCATTTGACATGGAGGACATGACCGCATCCTCAGGCGCTGGGAACAAGGCAGCAGCCCTTCAGAGGAGAATGTCC
ATGTACAGCCAGGGTACCCCGGAAACGCCCACCTTCAAAGACCACTCCTTCTTTAGGTGGCTGCATCCTTCCCCA
GACAAGCCCAGGCGGCTGTCTGTCTTGAGTGCCTTGCAAGACACTTTCTTTGCCAAGCTGCACCGCAGCCGCTCC
TTCAGTGACCTGCCCTCCCTCAGGCCGAGTCCCAAGGCCGTGCTAGAGCTCTATTCAAATCTACCTGATGACATC
TTTGAAAATGGAAAGGCAGCCGAGGAGAAAATGCCACTGTCGCTCAGCTTCAGTGACCTGCCCAACGGGGACTGC
GCCCTCACCTCCCACTCAACAGGCTCCCCTTCCAACTCAACAAATCCAGAAATTACCATCACCCCTGCGGAGTTT
AACCTCAGCAGCTTGGCCTCCCAGAATGAGGGTATGGATGACACCAGCTCAGCATCTTCCAGGAACTCCCTGGGA
GAAGGCCAAGAGCCAAAGTCACACCTGAAGGAGGAAGACCCAGAGGAGCCCAGAAAACCTGCCTCGGCCCCATCT
GAGGCTTGCCGCCGACAGTCCTCAGGTGCTGGGGCTGAGCACCTGTTCCTTGAGAATGATGTTGCAGAAGCACTT
CTGCAAGAGTCTGAGGAGGCCTCTGAGCTCAAGCCTGTGGAACTGGACACTTCGGAAGGAAACATCACAAAGCAG
CTGGTCAAGAGGCTCACATCTGCAGAGGTGCCAATGGCCACAGACAGGCTGCTCTCTGAGGGTTCTGTTGGTGGA
GAATCTGAAGGCTGCAGATCCTTTCTAGATGGAAGCTTAGAGGATGCTTTTAATGGGCTTTTACTTGCATTAGAA
CCACATAAAGAGCAGTATAAAGAGTTTCAGGATCTGAACCAAGAAGTCATGAATTTGGATGATATTCTAAAATGC
AAGCCAGCAGTAAGCCGCAGCAGGTCTTCCAGTTTAAGTCTCACAGTTGAAAGTGCTTTAGAAAGCTTTGATTTC
CTGAACACCTCTGATTTTGACGAGGAGGAGGATGGTGATGAGGTTTGTAATGTTGGCGGAGGTGCTGACTCAGTA
TTTTCAGACACTGAGACTGAGAAACACAGTTACAGGTCGGTTCACCCAGAAGCCAGGGGGCATCTCAGTGAAGCG
CTCACTGAAGACACAGGAGTTGGGACCAGTGTGGCAGGAAGTCCTCTCCCACTGACCACAGGCAACGAGAGCCTG
GACATCACCATCGTCAGGCACCTCCAGTACTGCACCCAACTCGTGCAGCAAATTGTTTTCTCAAGCAAAACCCCA
TTTGTGGCAAGAAGTCTCTTAGAGAAGCTTTCTAGGCAGATCCAAGTGATGGAGAAACTCGCAGCTGTCAGTGAT
GAGAACATAGGAAATATCAGTTCTGTTGTGGAAGCCATACCAGAATTTCACAAAAAGCTGTCTTTGCTGTCATTC
TGGACCAAGTGCTGCAGCCCTGTTGGTGTCTACCACAGCCCAGCGGACAGAGTGATGAAGCAGCTGGAGGCCAGC
TTTGCCAGAACTGTCAACAAAGAATATCCAGGACTTGCAGACCCAGTGTTTCGAACCCTGGTGTCCCAAATTCTG
GACCAGGCTGAGCCTCTGCTTTCCTCCAGCCTGTCCTCGGAAGTCGTCACTGTTTTCCAGTATTACAGTTACTTC
ACCAGCCACGGCGTCAGTGACCTGGAGAGTTACCTGAGCCAGCTGGCCAGGCAAGTTTCCATGGTTCAGACTCTG
CAATCACTAAGAGATGAAAAACTGCTACAAACCATGAGTGACCTTGCTCCCAGCAACCTCCTGGCCCAGCAGGAA
GTACTCAGGACTCTGGCTCTGCTATTAACCAGAGAGGACAACGAAGTTAGCGAGGCTGTGACGCTTTACTTGGCA
GCAGCCTCCAAAAATCAGCATTTCAGGGAAAAGGCCTTGCTCTATTACTGTGAAGCACTAACAAAGACAAACCTC
CAGCTCCAGAAAGCAGCTTGCCTGGCTCTGAAAATCCTTGAGGCTACTGAAAGCATTAAAATGCTGGTGACATTG
TGTCAATCTGATACTGAAGAAATCAGAAATGTGGCCTCAGAAACCCTCTTGTCTCTGGGAGAAGATGGGCGGCTG
GCATATGAACAATTGGACAAATTTCCTCGAGACTGTGTTAAAGTCGGAGGTCGTCATGGAACTGAAGTTGCCACA
GCCTTTTAATTACAGATTAACTGCCTAACAGCTGTCTTAATATCTGGCCCTTTTCATCAGGATGGTGCTGTGGTT
TGGGCTGGAAATTGTTTAGAGCCTGAGAGACACGACAACTGAAATAAAAATGTAGGCCAGGTGCAGTGGCTCATG
CCTGTAATCCCAGTACTTTGGGAGGCCAACGCAGGAGAATTGCTTAAGCCCAGGAGGTTCAAGACCAACCTGGGC
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FIGURE 1513B

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AACATAGCAAGGCCCTGTCTCTACAAAAAAAATAGTTTAATTAGTCGGGCGTGGTGGCATGCACCTGTAGTCCCA
GCTACTTGGGAGGCTAAGGTGGGAGGATTGCTTGAGCCCAGAAGATTCAGGCTGCAGTGAGCCATAATTGCCCCA
CTGCACTCCAGACTGGGTGACAGAGCAAAACCCTGTCTCAAAAAACAAAACAACAACAACAACTAAAAAAACATG
TTATAGAAAGAATTCAGAGTCTCGTTTCACAGTACCTATCTACTTTTCCTTTGGCCAATATAGAATAGGGCTATG
GTATAATTCAAATAGATTACATCGTCGATTGTGTCTAATAATACTCAGTGAAAGAGTCCATCTTATCTTAATATG
TATGAAATTTAAAAATAGCCATCTTTGTACTTTTTTGCAAGTTTCTCTATAAGCTTGAAATAGTCATGTGATACT
TCGACAAACATCATATGCCTTGCAGTTTTTCTCGGTCGTGTTCTCAGGGTTGAGTAGTCCCCTTAGCTACCTAAC
TTTACTTTCAATACAAAGCACAAAAAGAATACTTCAAATAAAAGTTTGCCTGCAGAACCTGGCAAAATGACCCA
TTATGAGAGTTTAGATGTTTTAATTTTATGTGCTCCCAGCTACTCTGGAGTCTGAGGTGGGAGGATCACTTGAGG
CAGAGGTTGCAGTAAGCTGAGATTACACTACTGCACTCCAGCCCATGTGACAGAGGAATGAGAGCCAGTCTCAAA
AAAAAAAAACAAAAAACTCCCATAATTTATTTTGTTTCTTTTCCCCATCCTGAAAATTCCCAAATCATGTTTCCA
TTATGGAAAAATGATAAGTAAATGACTAAGAACTACATTAAGATTATGCCTATACACTTAAACAAAAAACTCAAA
GCTTATGCTTTTTTTTTTTAATTAATGAGAGCTATTTTTTATGATATTCTTACCATAGGGGTGTTTTGCTGCTAA
GACAAATCAAAACCAAAGCTGTAGATTCACAAACCTGTGATGCTCTTTGAGGTGGAGGAACCTAGAAGTCAGAG
AAATCCTAATGGAGTAGGAGTGGAGGAACATTTAAAGTGGTCCCTCCTTCTGTAAAAATGACCGTGGGATTAGAA
AGAAGGACATCCTGAGGGGTGGTTACTGCCCCCAGGGAAATCACTCACTGGTAGGATTCCCTGGCCAAATAGTTC
AAACATCAGGTCCCATTATTGCTTCAGTATCAGAGATGCAAGTTCATTAAGCAAAGTACAAGACCATTCAGTAGC
TCTTATTAAAATATCTTTTCTTCCTCTAAAGAGTGTACAAGGTGGGGTATGCCAAGGTATCAAAACAATATATGT
GAGTGTAATTTAAACTGTGGAATATCAACTGTACTATGGACGTGTTTGTATCATTAGATGTCATTTAAAATATT
TACATTTTAGCAAGACTTTTAAAAAGGACTCATTTCATTTCAAAGTGCAATTGTTTGCCAGGCTTCTGGCAAAT
GGTTCTTTCAACTGTGAACTTATAGTGTACATATCTGTATATTTATAAATATTATATATATTCATACATCCTTCA
GTTTAAAGGTACATTGTACAGTCTGTAGTTAGGAGGTATAGCCTATAGCTTATGTTAAATGGTTGAAATGGTTCT
TTTTATAGAAAGTCAAACACAGATGTTACAGGATTTTGTGTTTGGTTGTCATTTTTTATTTTTTATTTTGACT
ATTGCATGAGTAATTAATTCCAGATCTTTTGTATTCACTTCTGTATTTTATGTTTGGTTGAGGGGTGCTTTTAGT
TGTGTGGCATTTGTATTCATTGATCTTTCAGTCATGTAAGTTAAAATAAAAATTATTTTTGAATTACTAGC
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FIGURE 1514

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MLVGSQSFSPGGPNGIIRSQSFAGFSGLQERRSRCNSFIENSSALKKPQAKLKKMHNLGHKNNNPPKEPQPKRVE
EVYRALKNGLDEYLEVHQTELDKLTAQLKDMKRNSRLGVLYDLDKQIKTIERYMRRLEFHISKVDELYEAYCIQR
RLQDGASKMKQAFATSPASKAARESLTEINRSFKEYTENMCTIEVELENLLGEFSIKMKGLAGFARLCPGDQYEI
FMKYGRQRWKLKGKIEVNGKQSWDGEETVFLPLIVGFISIKVTELKGLATHILVGSVTCETKELFAARPQVVAVD
INDLGTIKLNLEITWYPFDMEDMTASSGAGNKAAALQRRMSMYSQGTPETPTFKDHSFFRWLHPSPDKPRRLSVL
.SALQDTFFAKLHRSRSFSDLPSLRPSPKAVLELYSNLPDDIFENGKAAEEKMPLSLSFSDLPNGDCALTSHSTGS
PSNSTNPEITITPAEFNLSSLASQNEGMDDTSSASSRNSLGEGQEPKSHLKEEDPEEPRKPASAPSEACRRQSSG
AGAEHLFLENDVAEALLQESEEASELKPVELDTSEGNITKQLVKRLTSAEVPMATDRLLSEGSVGGESEGCRSFL
DGSLEDAFNGLLLALEPHKEQYKEFQDLNQEVMNLDDILKCKPAVSRSRSSSLSLTVESALESFDFLNTSDFDEE
EDGDEVCNVGGGADSVFSDTETEKHSYRSVHPEARGHLSEALTEDTGVGTSVAGSPLPLTTGNESLDITIVRHLQ
YCTQLVQQIVFSSKTPFVARSLLEKLSRQIQVMEKLAAVSDENIGNISSVVEAIPEFHKKLSLLSFWTKCCSPVG
VYHSPADRVMKQLEASFARTVNKEYPGLADPVFRTLVSQILDQAEPLLSSSLSSEVVTVFQYYSYFTSHGVSDLE
SYLSQLARQVSMVQTLQSLRDEKLLQTMSDLAPSNLLAQQEVLRTLALLLTREDNEVSEAVTLYLAAASKNQHFR
EKALLYYCEALTKTNLQLQKAACLALKILEATESIKMLVTLCQSDTEEIRNVASETLLSLGEDGRLAYEQLDKFP
RDCVKVGGRHGTEVATAF
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FIGURE 1515

AAGCAGTGGTAACAACGCAGAGTACGCGGGAAGCAGTGGTAACAACGCAGAGTACGCGGGAAGCAGTGGTAACAA
CGCAGAGTACGCGGGAAGCAGTGGTAACAACGCAGAGTACGCGGAAAGCAGTGGTAACAACGCAGAGTACGCGGG
GCCAGCGGAAGTGGCTCCTGTAAGGCAGCAAGGTAGCGTGGCCGGCGCCCGAGCTGGGGTTGTGTCCCTGCTGGG
CTGCCGTTCCAGCTGGACTGCCGCC**ATG**GAACTCAGCGCCGAATACCTCCGCGAGAAGCTGCAGCGGGACCTGGA
GGCGGAGCATGTGGAGGTGGAGGACACGACCCTCAACCGTTGCTCCTGTAGCTTCCGAGTCCTGGTGGTGTCGGC
CAAGTTCGAGGGGAAACCGCTGCTTCAGAGACACAGGCTGGTGAACGCGTGCCTAGCAGAAGAGCTCCCGCACAT
CCATGCCTTTGAACAGAAAACCCTGACCCCAGACCAGTGGGCACGTGAGCGACAGAAA**TGA**GGGACTGGGATCTG
CACAGCCATTAAATTATAAATCTGGACG

FIGURE 1516

MELSAEYLREKLQRDLEAEHVEVEDTTLNRCSCSFRVLVVSAKFEGKPLLQRHRLVNACLAEELPHIHAFEQKTL
TPDQWARERQK

FIGURE 1517

```
ATTTGCTTTCTCTTTTTCCTTTCTTCCGGATGAGAGGCTAAGCCATAATAGAAAGAATGGAGAATTATTGATTGA
CCGTCTTTATTCTGTGGGCTCTGATTCTCCAATGGGAATACCAAGGGATGGTTTTCCATACTGGAACCCAAAGGT
AAAGACACTCAAGGACAGACATTTTTGGCAGAGCATAGATGAAAATGGCAAGTTCCCTGGCTTTCCTTCTGCTCA
ACTTTCATGTCTCCCTCCTCTTGGTCCAGCTGCTCACTCCTTGCTCAGCTCAGTTTTCTGTGCTTGGACCCTCTG
GGCCCATCCTGGCCATGGTGGGTGAAGACGCTGATCTGCCCTGTCACCTGTTCCCGACCATGAGTGCAGAGACCA
TGGAGCTGAAGTGGGTAAGTTCCAGCCTAAGGCAGGTGGTGAACGTGTATGCAGATGGAAAGGAAGTGGAAGACA
GGCAGAGTGCACCGTATCGAGGGAGAACTTCGATTCTGCGGGATGGCATCACTGCAGGGAAGGCTGCTCTCCGAA
TACACAACGTCACAGCCTCTGACAGTGGAAAGTACTTGTGTTATTTCCAAGATGGTGACTTCTATGAAAAGCCC
TGGTGGAGCTGAAGGTTGCAGCACTGGGTTCTAATCTTCACGTCGAAGTGAAGGGTTATGAGGATGGAGGGATCC
ATCTGGAGTGCAGGTCCACCGGCTGGTACCCCCAACCCCAAATACAGTGGAGCAACGCCAAGGGAGAGAACATCC
CAGCTGTGGAAGCACCTGTGGTTGCAGATGGAGTGGGCCTATATGAAGTAGCAGCATCTGTGATCATGAGAGGCG
GCTCCGGGGAGGGTGTATCCTGCATCATCAGAAATTCCCTCCTCGGCCTGGAAAAGACAGCCAGCATTTCCATCG
CAGACCCCTTCTTCAGGAGCGCCCAGCCCTGGATCGCAGCCCTGGCAGGGACCCTGCCTATCTTGCTGCTGCTTC
TCGCCGGAGCCAGTTACTTCTTGTGGAGACAACAGAAGGAAATAACTGCTCTGTCCAGTGAGATAGAAAGTGAGC
AAGAGATGAAAGAAATGGGATATGCTGCAACAGAGCGGGAAATAAGCCTAAGAGAGAGCCTCCAGGAGGAACTCA
AGAGGAAAAAATCCAGTACTTGACTCGTGGAGAGGAGTCTTCGTCCGATACCAATAAGTCAGCCTGATGCTCTAA
TGGAAAAATGGCCCTCTTCAAGCCTGGTGAGGAAATGCTTCAGATGAGGCTCCACCTTGTTAAATAAATTGGATG
TATGGAAAAATAGACTGCAGAAAAGGGGAACTCATTTAGCTCACGAGTGGTCGAGTGAAGATTGAAAATTAACCT
CTGAGGGCCAGCACAGCAGCTCATGCCTGTAATCCTAGCACTTTGGAAGGCTGAGGAGGGCGGATCACAAGGTCA
GGAGATCAAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAATACAAAAAATAAAAAATTAGCCG
GGCATGGTGACGGGCACCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATGGCATGAACCCGGAAGGCA
GAGCTTGCAGTGAGCCGAGATCACGCCACTGCACTCCAGCCTGGGAGACAGAGCGAGACTCTGTCTCAAGAAAAA
AAAAAAAAAAAAAAA
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1710/2825
FIGURE 1518

MKMASSLAFLLLNFHVSLLLVQLLTPCSAQFSVLGPSGPILAMVGEDADLPCHLFPTMSAETMELKWVSSSLRQV
VNVYADGKEVEDRQSAPYRGRTSILRDGITAGKAALRIHNVTASDSGKYLCYFQDGDFYEKALVELKVAALGSNL
HVEVKGYEDGGIHLECRSTGWYPQPQIQWSNAKGENIPAVEAPVVADGVGLYEVAASVIMRGGSGEGVSCIIRNS
LLGLEKTASISIADPFFRSAQPWIAALAGTLPILLLLLAGASYFLWRQQKEITALSSEIESEQEMKEMGYAATER
EISLRESLQEELKRKKSST

FIGURE 1519

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GGCTCGAGTGCCTGGCGGGCTCTGGCTTCCGCGTCCGCCCCTGCTCCGGCTTCGCCCGCAGCTCCGCGCCCGCGG
GCAACCAAGCCCCCAGCGAAGCCCGCACAGCTCCGGGTGCCAGGACGGGGGGCCATGCCGTGCCGGAGGGAGGAG
GAAGAGGAAGCCGGCGAGGAGGCGGAGGGGGAGGAAGAGGAGGACGACAGCTTCCTCCTGCTGCAGCAGTCGGTG
ACGCTGGGCAGCTCGGGCGAGGTGGACCGGCTGGTGGCCCAGATCGGCGAGACGCTGCAGCTGGACGCGGCGCAG
GACAGCCCGGCCTCGCCGTGCGCGCCCCCGGGGGTGCCGCTGCGGGCCCCGGGGCCCCTGGCTGCGGCGGTGCCG
GCGGACAAGGCCCGGCCCCCGGCGGTGCCGCTGCTGCTGCCGCCCGCTTCGGCTGAGACGGTGGGCCCGGCGCCC
TCTGGGGCCCTGCGCTGCGCCCTAGGGGACCGCGGCCGCGTGCGCGGACGCGCTGCGCCCTACTGCGTGGCGGAG
GTCGCCGCAGGCCCCAGCGCGCTGCCGGGGCCGTGCCGGCGAGGATGGCTCAGGGACGCGGTCACCTCCGCCGC
TTGCAGCAGCGCCGATGGACCCAAGCCGGGGCACGCGCCGGCGACGACGACCCGCATCGGCTCCTCCAGCAGCTC
GTGCTCTCGGGAAACCTCATCAAGGAAGCCGTGCGGAGACTCCAACGAGCCGTCGCCGCGGTTGCAGCCACGGGC
CCCGCAAGCGCCCCTGGGCCCGGGGGAGGCCGCAGCGGACCTGACCGCATTGCCCTGCAGCCCTCAGGCTCCTTG
CTCTGACGCAGGCCTCCTGGAGGAGGAAGTGGAGGCCGCTGCGTAGACCCAACAGCGTCCAGTTCCTACTAACTC
TGAGCTGAAGCCGACGTCGCCAGCCTGGGAGCGACCACTTTGGCTGCGGGGAGGCGCGTGGGGAGAGATCTCAAC
CAGAGAAGTTACCAGCCGCGGCGAGGCCGTCGGAGAAAACTTAAGCGTGGAGAAATGTATGCGCCAGGGTGCTTC
CGTGGGGCATGAGAATTTCCCGGGCCATCCAAGCCCAAGGACCTGGGATAAACTGGGAGAACTATGGCAGCTACT
TGCATCGACTTGTACCTCACTTAGCCCTTGGGGGCGTCGTGAGCTTGGATTGTTTAAGGAGGGCTCAGGGGTAGG
AATCGCGATGGCTTTATAACAATACTTGAAAACTAACGACACGCATACATTTTCTTATTTTCTGGTGGAGGAGCT
TAGTAAGTGGTGCTACAATTGCTGTGCAAAGAAATTCCAGAGGGGAGAAGAATGTAAAAGTTTGGTGGTGGGTGG
CTTGGCATTGCCCCTTTTTCCCACCGATTCGGTGGCTGGTGAAGGTGGGAGATGTGAACTCCAATTAAGGGACTG
GAGAGAGGTGAAGAATTTTGCAGGTGGGAGATTTGGATTTGAATGTGGACTTGTAAATGACTTGACCTTGCCATC
TGTGTTCAAGGTCACGGTTTGCTGTGGGGTTCCTGGGAGAGCTTACTCACCCCGGAGTCTTTTCTTTCTCTTGCT
CCAAGAAGAGCCCTGTTGGTGCTTTACCACCGCTTGGAGTCTCCCGAGGACACAAACAGGCAGAGAGGGACGTGT
AGGGAGAGTTCTTTCCTGTTTTCTGTGCTTTCCTTTTTACAGGACTCCCGGAAGGCCACTCATGGCCATGCCAGG
AGCTTTCTCAGAAACAGTCATAAACGATCTCTTGAGTCTCTTTCTTGTCCTCCCAGCTGAGCTTTCTTATTCCAC
CCTTTCTGGTGTCTATAGGAATGCATGAGAGACCCTGGACGTTTTTCTGCTCTCTTCTGGCCCTCCATGGAGCCA
TGGGCCTCGGCCTCGGCGGCTCCTCACCCTCACAATTTATTTCCTCCTCCCGTGCCAGCCCTTCTTTTGTGTCTG
AAACCGGTTTTAAAATGTGACTCTCCCAGAGAAGAAGCCGCTGGCTGTATGAAACTTGACGGCGCTTTTGTAAGG
TGCCACCCCCAAACTTTAAGGTAGCTAAACCAATTTTTAAAAGATTCAATGGCTTGTTCATCCTCCAGATGTAGC
TATTGATGTACACTTCGCAACGGAGTGTCTGAAATTGTGGTGGTCCTGATTTATAGGATTTCAT
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FIGURE 1520

MPCRREEEEEAGEEAEGEEEEDDSFLLLQQSVTLGSSGEVDRLVAQIGETLQLDAAQDSPASPCAPPGVPLRAPG
PLAAAVPADKARPPAVPLLLPPASAETVGPAPSGALRCALGDRGRVRGRAAPYCVAEVAAGPSALPGPCRRGWLR
DAVTSRRLQQRRWTQAGARAGDDDPHRLLQQLVLSGNLIKEAVRRLQRAVAAVAATGPASAPGPGGGRSGPDRIA
LQPSGSLL

FIGURE 1521

GCAGAGCACAGCATCGTCGGGACCAGACTCGTCTCAGGCCAGTTGCAGCCTTCTCAGCCAAACGCCGACCAAGGA
AAACTCACTACC**ATG**AGAATTGCAGTGATTTGCTTTTGCCTCCTAGGCATCACCTGTGCCATACCAGTTAAACAG
GCTGATTCTGGAAGTTCTGAGGAAAAGCAGCTTTACAACAAATACCCAGATGCTGTGGCCACATGGCTAAACCCT
GACCCATCTCAGAAGCAGAATCTCCTAGCCCCACAGACCCTTCCAAGTAAGTCCAACGAAAGCCATGACCACATG
GATGATATGGATGATGAAGATGATGATGACCATGTGGACAGCCAGGACTCCATTGACTCGAACGACTCTGATGAT
GTAGATGACACTGATGATTCTCACCAGTCTGATGAGTCTCACCATTCTGATGAATCTGATGAACTGGTCACTGAT
TTTCCCACGGACCTGCCAGCAACCGAAGTTTTCACTCCAGTTGTCCCCACAGTAGACACATATGATGGCCGAGGT
GATAGTGTGGTTTATGGACTGAGGTCAAAATCTAAGAAGTTTCGCAGACCTGACATCCAGTACCCTGATGCTACA
GACGAGGACATCACCTCACACATGGAAAGCGAGGAGTTGAATGGTGCATACAAGGCCATCCCCGTTGCCCAGGAC
CTGAACGCGCCTTCTGATTGGGACAGCCGTGGGAAGGACAGTTATGAAACGAGTCAGCTGGATGACCAGAGTGCT
GAAACCCACAGCCACAAGCAGTCCAGATTATATAAGCGGAAAGCCAATGATGAGAGCAATGAGCATTCCGATGTG
ATTGATAGTCAGGAACTTTCCAAAGTCAGCCGTGAATTCCACAGCCATGAATTTCACAGCCATGAAGATATGCTG
GTTGTAGACCCCAAAAGTAAGGAAGAAGATAAACACCTGAAATTTCGTATTTCTCATGAATTAGATAGTGCATCT
TCTGAGGTCAAT**TAA**AAGGAGAAAAAATACAATTTCTCACTTTGCATTAGTCAAAGAAAAAATGCTTTATAGC
AAAATGAAAGAGAACATGAAATGCTTCTTTCTCAGTTTATTGGTTGAATGTGTATCTATTTGAGTCTGGAAATAA
CTAATGTGTTTGATAATTAGTTTAGTTTGTGGCTTCATGGAAACTCCCTGTAAACTAAAAGCTTCAGGGTTATGT
CTATGTTCATTCTATAGAAGAAATGCAAACTATCACTGTATTTAATATTTGTTATTCTCTCATGAATAGAAATT
TATGTAGAAGCAAACAAAATACTTTTACCCACTTAAAAAGAGAATATAACATTTTATGTCACTATAATCTTTTGT
TTTTTAAGTTAGTGTATATTTTGTTGTGATTATCTTTTGTGGTGTGAATAAATCTTTTATCTTGAATGTAATAA
GAATTTGGTGGTGTCAATTGCTTATTTGTTTTCCCACGGTTGTCCAGCAATTAATAAAACATAACCTTTTTTACT
GCCTAAAAAAAAAAAAAAAAAAAA

FIGURE 1522

MRIAVICFCLLGITCAIPVKQADSGSSEEKQLYNKYPDAVATWLNPDPSQKQNLLAPQTLPSKSNESHDHMDDMD
DEDDDDHVDSQDSIDSNDSDDVDDTDDSHQSDESHHSDESDELVTDFPTDLPATEVFTPVVPTVDTYDGRGDSVV
YGLRSKSKKFRRPDIQYPDATDEDITSHMESEELNGAYKAIPVAQDLNAPSDWDSRGKDSYETSQLDDQSAETHS
HKQSRLYKRKANDESNEHSDVIDSQELSKVSREFHSHEFHSHEDMLVVDPKSKEEDKHLKFRISHELDSASSEVN

FIGURE 1523

CGCGAGTGAAGGAAGACGAATGCGTGACCCGACCGGCTGTGGTGTTCCAGTCCCCACTGACCAGTAGGAGCAGCA
GGGCGTCGGCTTGTGAGGTGGCTTTTCCTCGGGGCAACCCAGGAAGGCCCCAAGAGGACA**ATG**GATTCTGGAACT
CGCCCAGTTGGTAGCTGCTGTAGCAGCCCCGCTGGGCTCTCACGGGAGTACAAACTAGTGATGCTGGGTGCTGGT
GGTGTAGGGAAGAGTGCCATGACCATGCAGTTCATCAGCCACCGATTCCCAGAAGATCATGATCCCACCATTGAA
GATGCTTATAAGATCAGGATCCGTATTGATGATGAGCCTGCCAATCTGGACATTTTGGATACAGCTGGACAGGCA
GAGTTTACAGCCATGCGGGACCAGTATATGAGGGCAGGAGAAGGGTTTATCATCTGTTACTCTATCACGGATCGT
CGAAGTTTCCATGAAGTTCGTGAGTTTAAACAGCTTATTTATCGAGTCCGACGTACTGACGATACACCTGTGGTT
CTTGTGGGAAACAAGTCAGACCTCAAACAGCTAAGACAGGTCACCAAGGAAGAAGGATTGGCCTTGGCCCGAGAA
TTCAGCTGTCCCTTTTTTGAGACATCTGCTGCATACCGCTACTATATTGATGATGTTTTCCATGCCCTTGTACGG
GAGATACGTAGGAAAGAAAAGGAGGCAGTACTGGCCATGGAGAAAAAATCTAAGCCCAAAAACAGTGTATGGAAG
AGGCTAAAATCACCATTCCGGAAGAAGAAAGATTCAGTAACT**TGA**AGAGAAGATGTGAAGTGTTATCTGTGAAC
TGCAGTGCTGTATCAAAGCAGTCCAGTAACCTGCAGTACTGAGTATGGTGCTTGCTCTTTCACTTAACTGATAAG
AGGGACATGCCTACTAGGAGTTTTTAATGATGTGGTATTTAAAGTATTGTCTCTTAGTTAAGTATGATTTATTAA
CCCAGTGGAGCACTGTCTGCTTTTAAATTGTCACATTAGAATTTGTTCTACCAAAAAAAAAA

FIGURE 1524

MDSGTRPVGSCCSSPAGLSREYKLVMLGAGGVGKSAMTMQFISHRFPEDHDPTIEDAYKIRIRIDDEPANLDILD
TAGQAEFTAMRDQYMRAGEGFIICYSITDRRSFHEVREFKQLIYRVRRTDDTPVVLVGNKSDLKQLRQVTKEEGL
ALAREFSCPFFETSAAYRYYIDDVFHALVREIRRKEKEAVLAMEKKSKPKNSVWKRLKSPFRKKKDSVT

FIGURE 1525

ATTGCATTTTTATTCACATACACATTGTTAATGTGGAACAATTTAACACTAATCTCATCAGAGAGCGAGATGAAT
GTGGCAATTGCTCATTTTATTTTGCATATATTAAATTGAGTAGGTTCAGCTCTAACATACCTTAAGAAAAATGCA
TATCGGTGCACTGTATGTATTTCAAAATGCCTTTCCTATGATTGTCATGTCCTCCTTTAAGGCTTTTCCCTCAAA
TTTATTACAAATTTAGTATTTTTAGTACTTGATGACTCTAATTACATGAATGCACCTGGAATGACATTTGTAACA
GAAGACGGTCTGACTTGCTTTCAGTATTCACAAGTTCTTTCCAGTTTCCAAGTCTTTTCCTAGCAGTAATTTAGG
GGAGACAGAGGAGTTTCATGTAAAGAGCATGCAGTTTGGAGTCAGAACCTGGGTATGACTCTGTGGCCTTGATGA
AGCAAGTTACTTAAACTCTTGAGTTTTAGCTTTCTCCTTTACAATGCATGAATGCCTATCCCCCTACAAAACAAA
GATTAAATGTGATGATGTATGCCAAGGTGCTTTGTATATTGTAAAGTGCTATATAATTATAAGATGTTCTAAATT
TTCAAGGATCTAAACCAGGGATTGGCAAACGTTTTTCCAGGGAGTAAATATTTTACGCTTTGCATATATAATTTA
TGGAGGTGTTGAGAGGATAGATTAGACACTTGAAGTACTCAGGATAGTGCCTGGCATGTAGGAAGCACCTGGAAA
ATATTCGCTGTGATTACCATCAGTCCATTTTACCGAGGAAGGAGCCAAGGTCCAGGCCCACTGAAGGACTTGCAT
AACATTACAATAGCAGTGGCAGAACCAGCCATGCTTCTGCAAATCACAACCTCTTTGAGCCTCTGTCACCTGAAC
TGCAAA**ATG**AGTGGGTTAGACAAAATCATCTGTTGGGACCTCCTAGTTCCACGTGCTATCATTCTACTAACTGGC
ACCCTAAGGTTGAAAGTGCTTATCTGCTTTCCAATGTGGCTTCCTTACAGTCTGGAACTGACAATATGCAGGAGC
AGTAAACTGGCAGAAAACCAGGAATCAGAGAAAGAAAATATAATT**TAA**CTTTAAAGATGTAAATTATATATATAG
TATATTATATATATTTTTAAAGCTTTATATGCCTCAAATATCAGGGAAAGGAGCCAAGTCCTTGGTATTTAGTTT
GGTGAATACTTGCATTGAATACATGTCAAGATGTCAAGTCATTTTTGAATGTGTCTCAGGGATTTCTATGCTACA
CATTCTTTTAACAAATCAAGTATTTATGTACACATGTTCAGATTTTTTGACAAAATGATTAAAATAATGAGATGG
AAAATGAAAAAAAATCTATGTCGGGTGCGGAGAAAGAGGTAATGAAATG

FIGURE 1526

MSGLDKIICWDLLVPRAIILLTGTLRLKVLICFPMWLPYSLELTICRSSKLAENQESEKENII

FIGURE 1527

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TGCGACGTGACTGGCTAGCTGCGTGGGTACTGGAACAAGCAAACGAGGCAGCGAGCGAAGGACGGGAGCCGGACC
CTGGGCCCCGTGGAACTCCAGCCTGCGCCACCACGTCACGCACACGCTCGGCGCTGCGATCCGCGCATATAACGA
TATTTGGATTTGACCTGCATTTTGGAATTTATCTACACTTAAAATGCCACCAGCAGTTGGAGGTCCAGTTGGATA
CACCCCCCCAGATGGAGGCTGGGGCTGGGCAGTGGTAATTGGAGCTTTCATTTCCATCGGCTTCTCTTATGCATT
TCCCAAATCAATTACTGTCTTCTTCAAAGAGATTGAAGGTATATTCCATGCCACCACCAGCGAAGTGTCATGGAT
ATCCTCCATAATGTTGGCTGTCATGTATGGTGGAGGTCCTATCAGCAGTATCCTGGTGAATAAATATGGAAGTCG
TATAGTCATGATTGTTGGTGGCTGCTTGTCAGGCTGTGGCTTGATTGCAGCTTCTTTCTGTAACACCGTACAGCA
ACTATACGTCTGTATTGGAGTCATTGGAGGTCTTGGGCTTGCCTTCAACTTGAATCCAGCTCTGACCATGATTGG
CAAGTATTTCTACAAGAGGCGACCATTGGCCAACGGACTGGCCATGGCAGGCAGCCCTGTGTTCCTCTGTACTCT
GGCCCCCCTCAATCAGGTTTTCTTCGGTATCTTTGGATGGAGAGGAAGCTTTCTAATTCTTGGGGGCTTGCTACT
AAACTGCTGTGTTGCTGGAGCCCTCATGCGACCAATCGGGCCCAAGCCAACCAAGGCAGGGAAGATAAGTCTAA
AGCATCCCTTGAGAAAGCTGGAAAATCTGGTGTGAAAAAAGATCTGCATGATGCAAATACAGATCTTATTGGAAG
ACACCCTAAACAAGAGAAACGATCAGTCTTCCAAACAATTAATCAGTTCCTGGACTTAACCCTATTCACCCACAG
AGGCTTTTTGCTATACCTCTCTGGAAATGTGATCATGTTTTTTGGACTCTTTGCACCTTTGGTGTTTCTTAGTAG
TTATGGGAAGAGTCAGCATTATTCTAGTGAGAAGTCTGCCTTCCTTCTTTCCATTCTGGCTTTTGTTGACATGGT
AGCCCGACCATCTATGGGACTTGTAGCCAACACAAAGCCAATAAGACCTCGAATTCAGTATTTCTTTGCGGCTTC
CGTTGTTGCAAATGGAGTGTGTCATATGCTAGCACCTTTATCCACTACCTATGTTGGATTCTGTGTCTATGCGGG
ATTCTTTGGATTTGCCTTCGGGTGGCTCAGCTCCGTATTGTTTGAAACATTGATGGACCTTGTTGGACCCCAGAG
GTTCTCCAGCGCTGTGGGATTGGTGACCATTGTGGAATGCTGTCCTGTCCTCCTGGGGCCACCACTTTTAGGTCG
GCTCAATGACATGTATGGAGACTACAAATACACATACTGGGCATGTGGCGTCGTCCTAATTATTTCAGGTATCTA
TCTCTTCATTGGCATGGGCATCAATTATCGACTTTTGGCAAAAGAACAGAAAGCAAACGAGCAGAAAAAGGAAAG
TAAAGAGGAAGAGACCAGTATAGATGTTGCTGGGAAGCCAAATGAAGTTACCAAAGCAGCAGAATCTCCGGACCA
GAAAGACACAGAAGGAGGGCCCAAGGAGGAGGAAAGTCCAGTCTGAATCCATGGGGCTGAAGGGTAAATTGAGCA
GTTCATGACCCAGGATATCTGAAAATATTCTACTGGCCTGTAATCTACCAGTGGTGCTCAATGCAAATAGTAGAC
ATTTGTGTGGAAATCATACCAGTTGTTCATTGATGGGATTTTTGTTTGACTCCTTACCAATAGCCTGAATTTGAG
GAGGGAATGATTGGTAGCAAAGGATGGGGGAAAGAAGTAGGTTCTGTTTTGTTTTGTTTTAATCTTAGCTTTTAA
TAGTGTCATAAAGATTATAATATGTGCCTTAAGTTTTAGTCTTTAGAACTCTAGAGAGCCTTAACTTCTTAAACC
ATTTTTGCTGAATTCATCTATTTCGAGTGTTGTGTTAAAAGGAAAAATAACAACTAACTTGTTTGAGGCAAATCT
AAAATTTAAAATTAATCTTGCTTCATTGTTACATGTAATATATTTCAGACATTTTCACTGGAAGATTTATGAACA
GAAATATTGGTTGAAAGTTAGAGATTTTACAAAATGCTGACAAAAATATTTTCCTAGCATCAGTAGATTTCTGGC
ATATGTTTCTGCTAGCTATATATTTAGGAAATTCAAAGCATAAAACTTTGGCAACATCTTGGCTGTTCTAGACAC
AGTGTACTTGTCAACCCCTCTCAGGTACCTTTTCTTGGGATGCTTATTAGAAGCCAAGTAAAGTGCTTAAGGTTT
GTTTTCATTAAATTAGCTATTTCTGCTCCCCTGTTCAAAGATGCATTTTGAGTGTTTATAGATCACTGCCCTTTT
TGAAATCACCTGGTATTATTTTTCTTACTGGAAAAGTTAGTATTAAAATCTACAGAACTACATATTTGTGCCTCC
TTGGTAAATACAACACATCTAATTAAATGTAGACAGATATTTCAAACATCAGCTGAATTCACTTAAGTTTTTCCA
AAACCTCAGTTAAACTGTGAAGCTATTGGAATTTTTTTTCCTGGAATTTTTCCCCTTTGATTCACAGTGGTCCC
ATTTATATCTGCTTCTAGCTTAGTGCTATGTGTGAGATATGTGTGTGTTTGGTGTTTTTGTTTTTTGTTTTTTT
TTTTTAAGGTTTGCAAATTAAAAAGGGCCAGAAAAATTTGGCACCAGGCAAACGAATAAAGATAGGATTGGGAA
AGAAGTTGCTAAGTGTGCTTAGTTTTAATAAGTAATTCCTTCTCTTTTTTCAGAGAAGGCCTTACAGAAAATTGT
TGTGCTTAGAATTGCTGGATGCATTTTTACCCTCCACACAAACCTAAAAATTTTGTGACCCCTTTCACTTACCTG
AAAAGTAGAGAAATGGATTCAGTATAAGGATAAGGAGGGAAGGTGGACCAGAATGAAAACTGTAAATATTTTTTT
AACCTAATATCACTTAAATCGAGGCAGAAAGATATAGACATTCAATGAATTATATTCAATGCATTTAAAATACCA
CTGTAATTGACAGAGTAAAAGTATAGATACAAACCTTGTGTAAGAGGCTGACTTTTCCAAATAAACATTTTTTA
AGAAACATTTCTTCTCCCAAATGTCTATTTTCTTGAGGAAAATATTGCTGTGTCTTCATTTTCATTACCAGGTT
TCATTTTGGGCCTTGCTAAATTGATTGAATTAAATCCTCCAGCTTTTGAACCTTGAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAGAAAAAAAAAAAAAAAAG
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FIGURE 1528

MPPAVGGPVGYTPPDGGWGWAVVIGAFISIGFSYAFPKSITVFFKEIEGIFHATTSEVSWISSIMLAVMYGGGPI
SSILVNKYGSRIVMIVGGCLSGCGLIAASFCNTVQQLYVCIGVIGGLGLAFNLNPALTMIGKYFYKRRPLANGLA
MAGSPVFLCTLAPLNQVFFGIFGWRGSFLILGGLLLNCCVAGALMRPIGPKPTKAGKDKSKASLEKAGKSGVKKD
LHDANTDLIGRHPKQEKRSVFQTINQFLDLTLFTHRGFLLYLSGNVIMFFGLFAPLVFLSSYGKSQHYSSEKSAF
LLSILAFVDMVARPSMGLVANTKPIRPRIQYFFAASVVANGVCHMLAPLSTTYVGFCVYAGFFGFAFGWLSSVLF
ETLMDLVGPQRFSSAVGLVTIVECCPVLLGPPLLGRLNDMYGDYKYTYWACGVVLIISGIYLFIGMGINYRLLAK
EQKANEQKKESKEEETSIDVAGKPNEVTKAAESPDQKDTEGGPKEEESPV

FIGURE 1529A

CGCCAG**ATG**GCTGAGAGCTATCAAGGAAAACTCAGGACCATGATGGCTCAGTTTCCCACAGCTATGAATGGAGGG
CCAAACATGTGGGCTATTACCTCTGAAGAACGTACTAAGCATGACAGGCAGTTTGATAACCTCAAACCTTCAGGA
GGTTACATAACAGGTGATCAAGCACGTAATTTTTTCCTACAATCAGGTCTGCCGGCCCCTGTTTTAGCTGAAATA
TGGGCTTTATCAGACCTAAACAAGGATGGGAAGATGGATCAGCAAGAGTTCTCCATAGCTATGAAACTCATCAAA
CTGAAGCTTCAAGGCCAACAGTTGCCTGTGGTTCTCCCTCCTATTATGAAGCAACCCCCTATGTTTTCTCCATTA
ATTTCTGCTCGTTTTGGAATGGGAAGCATGCCCAATCTGTCCATTCCTCAGCCATTGCCTCCAGCTGCACCTATA
ACATCATTGTCTTCTGCGACTTCAGGGACCAACCTTCCTCCCTTAATGATGCCCACTCCCCTAGTGCCTTCTGTT
AGCACATCATCATTACCAAATGGAACCGCCAGTCTCATTCAGCCTTTACCCATTCCTTATTCTTCTTCAACATTG
CCTCATGGGTCATCTTATAGTCTGATGATGGGAGGATTGGAGGTGCTAGTATACAGAAAGCGCAGTCTCTGATT
GATTTAGGATCTAGTAGCTCAACTTCCTCGACTGCTTCACTCTCAGGGAACTCACCCAAGACTGGGACCTCAGAG
TGGGCAGTTCCTCAGCCTACAAGATTAAAATATCGGCAAAAATTAATACTCTTGACAAAAGTATGAGTGGATAT
CTCTCAGGTTTTCAAGCTAGAAATGCCCTTCTTCAGTCAAATCTTTCTCAAACTCAGCTGGCTACTATTTGGACT
CTGGCTGACGTTGATGGTGATGGACAGCTAAAAGCAGAAGAGTTTATTCTTGCAATGCACCTTACTGACATGGCC
AAAGCTGGACAGCCATTACCACTGACTTTACCTCCTGAGCTTGTTCCTCCATCTTTCAGAGGAGGAAAGCAAATT
GATTCCATTAATGGAACTCTGCCTTCATATCAGAAATGCAAGAAGAGGAGCCTCAGAAGAAATTACCAGTTACT
TTTGAGGACAAACGGAAAGCCAACTATGAGCGAGGGAACATGGAGCTGGAAAAGCGACGCCAAGCCTTGATGGAG
CAGCAACAAAGGGAGGCAGAACGTAAAGCCCAGAAAGAAAGGAAGAGTGGGAACGAAAACAGAGAGAATTACAA
GAACAAGAATGGAAGAAACAACTTGAATTAGAAAAACGCTTAGAGAAGCAACGGGAATTGGAGAGACAACGAGAG
GAAGAAAGGAGAAAGACATAGAAAGACGAGAGGCAGCAAAACAGGAACTTGAACGACAACGTCGCTTAGAATGG
GAGAGAATTCGGCGACAGGAGCTTCTCAATCAAAGAATAGAGAACAAGAAGAAATTGTCAGGTTAAACTCTAAA
AAGAAGAATCTTCATCTTGAGTTGGAAGCACTGAATGGCAAACATCAGCAGATCTCAGGCAGACTTCAGGATGTC
CGACTCAAAAAGCAAACTCAAAAGACTGAGCTGGAAGTTCTGGATAAGCAGTGTGACTTGGAAATTATGGAAATC
AAGCAACTTCAACAGGAACTTCAGGAATATCAGAATAAGCTTATCTATCTGGTACCTGAGAAGCAATTATTAAAT
GAAAGAATTAAAAACATGCAGTTCAGTAACACACCTGATTCAGGGGTCAGTTTACTTCATAAAAAATCATTAGAA
AAGGAAGAATTATGCCAAAGACTTAAAGAACAGTTAGATGCTCTTGAAAAAGAAACTGCATCTAAGCTGTCAGAA
ATGGATTCTTTTAACAATCAACTAAAGGAACTGAGAGAAACCTACAACACACAGCAGTTAGCCCTTGAACAGCTT
TATAAGATCAAACGTGACAAGTTGAAGGAAATTGAAGGAAAAGATTAGAACTAATGCAGAAAAAGAAACTAGAA
GATGAGGCTGCAAGGAAAGCAAAGCAAGGAAAAGAAACTTATGGAAAGAAAATCTTAGAAAGGAGGAAGAAGAA
AAACAAAAGCGACTCCAGGAAGAAAAAACACAAGAAAAATTCAAGAAGAGGAACGGAAAGCTGAGGAGAAACAA
CGTAAGGATAAGGATACTTTGAAAGCTGAGGAGAAAAACGTGAGACAGCTAGTGTTTTGGTGAATTATAGAGCA
TTATACCCCTTTGAAGCAAGGAACCATGATGAGATGAGTTTTAATTCTGGAGATATAATTCAGGTTGATGAAAAA
ACCGTAGGAGAACCTGGTTGGCTTTATGGTAGTTTTCAAGGAAATTTTGGCTGGTTTCCATGCAATTATGTAGAA
AAAATGCCATCAAGTGAAAATGAAAAAGCTGTATCTCCAAAGAAGGCCTTACTTCCTCCTACAGTTTCTTTATCT
GCTACCTCAACTTCCTCTGAACCACTTTCTTCAAATCAACCAGCATCAGTGACTGATTATCAAAATGTATCTTTT
TCAAACCTAACTGTAAATACATCATGGCAGAAAAAATCAGCCTTCACTCGAACTGTGTCCCCTGGATCTGTATCA
CCTATTCATGGACAGGGACAAGTGGTAGAAAACTTAAAAGCACAGGCCCTTTGTTCCTGGACTGCAAAGAAAGAT
AACCACTTGAACTTCTCAAAACATGACATTATTACTGTCTTGGAGCAGCAAGAAATTGGTGGTTTGGGGAGGTG
CATGGAGGAAGAGGATGGTTTCCCAAATCTTATGTCAAGATCATTCCTGGGAGTGAAGTAAAACGGGAAGAACCA
GAAGCTTTGTATGCAGCTGTAAATAAGAAACCTACCTCGGCAGCCTATTCAGTTGGAGAAGAATATATTGCACTT
TATCCATATTCAAGTGTGGAACCTGGAGATTTGACTTTCACAGAAGGTGAAGAAATATTGGTGACCCAGAAAGAT
GGAGAGTGGTGGACAGGAAGTATTGGAGATAGAAGTGGAATTTTTCCATCAAACTATGTCAAACCAAAGGATCAA
GAGAGTTTTGGGAGTGCTAGCAAGTCTGGAGCATCAAATAAAAAACCTGAGATTGCTCAGGTAACTTCAGCATAT
GTTGCTTCTGGTTCTGAACAACTTAGCCTTGCACCAGGACAGTTAATATTAATTCTAAAGAAAAATACAAGTGGG
TGGTGGCAAGGAGAGTTACAGGCCAGAGGAAAAAAGCGACAGAAGGATGGTTTCCTGCCAGTCATGTTAAACTT
TTGGGTCCAAGTAGTGAAAGAGCCACACCTGCCTTTCATCCTGTATGTCAGGTGATTGCTATGTATGACTATGCA
GCAAATAATGAAGATGAGCTCAGTTTCTCCAAGGGACAACTCATTAATGTTATGAACAAAGATGATCCTGATTGG
TGGCAAGGAGAGATCAACGGGGTGACTGGTCTCTTTCCTTCAAACTACGTTAAGATGACGACAGACTCAGATCCA
AGTCAACAGTGGTGTGCTGATCTGCAAACCCTGGACACAATGCAGCCAATTGAGAGGAAAGACAGGGCTATATT

FIGURE 1529B

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CATGAGCTGATTCAGACCGAAGAGCGGTACATGGCTGACCTTCAGCTCGTCGTCGAGGTTTTTCAGAAACGCATG
GCAGAGTCAGGCTTTCTCACTGAAGGGGAGATGGCCCTGATTTTTGTTAACTGGAAGGAGCTCATCATGTCCAAC
ACAAAGCTGCTGAAGGCTTTGCGGGTGCGGAAGAAGACCGGGGGCGAGAAGATGCCGGTGCAGATGATTGGGGAC
ATCCTGGCCGCTGAGCTGTCCCACATGCAGGCTTACATCAGGTTCTGCAGCTGCCAGCTTAATGGAGCAGCTCTG
TTACAGCAGAAGACAGATGAAGACACAGATTTCAAAGAATTTTTAAAGAAGCTGGCATCTGACCCGCGGTGTAAA
GGAATGCCCCTCTCCAGCTTCCTGCTGAAACCCATGCAGAGGATCACCCGCTACCCACTGCTCATCAGAAGTATT
CTGGAGAACACCCCGGAGAGCCATGCAGACCATTCCTCCCTAAAGCTGGCCCTCGAGCGGGCAGAGGAGCTGTGC
TCTCAAGTGAATGAGGGAGTTCGGGAGAAGGAAAACTCGGACCGACTGGAGTGGATCCAGGCGCACGTGCAGTGT
GAAGGCCTCGCGGAGCAACTTATTTTCAACTCTCTCACCAACTGCCTGGGGCCCCGGAAGCTCTTACACAGTGGG
AAATTATACAAGACCAAGAGCAACAAGGAACTGCACGGATTCCTCTTCAATGACTTCCTGCTTCTTACCTACATG
GTCAAGCAGTTTGCTGTTTCCTCTGGCTCTGAGAAACTTTTCAGCTCGAAGTCCAATGCTCAATTCAAAATGTAT
AAAACGCCCATTTTCCTGAATGAAGTCTTGGTGAAACTGCCCACAGACCCTTCCAGCGATGAGCCTGTCTTCCAC
ATTTCCCACATTGATCGGGTCTACACCCTCCGAACAGACAACATTAATGAGAGGACCGCCTGGGTGCAGAAGATC
AAGGCGGCGTCTGAGCAGTACATCGACACCGAGAAGAAGCAGCGTGAGAAAGCTTACCAAGCCCGCTCCCAAAAG
ACTTCAGGCATTGGGCGCCTGATGGTGCATGTCATTGAAGCTACAGAATTAAAAGCCTGCAAACCAAATGGAAAG
AGCAACCCATACTGTGAAATCAGCATGGGCTCCCAGAGCTACACCACCAGGACCATCCAGGACACACTCAATCCC
AAGTGGAATTTTAACTGCCAGTTCTTTATTAAGGATCTCTACCAAGACGTGCTGTGTCTCACCCTGTTTGACAGA
GACCAGTTTTCACCAGATGATTTCCTGGGTCGTACTGAAATTCCAGTGGCAAAAATTCGAACAGAACAGGAAAGC
AAAGGCCCTATGACCCGCCGACTGCTGCTGCATGAGGTCCCCACCGGGGAGGTCTGGGTCCGTTTTGACCTGCAG
CTTTTTGAGCAAAAAACTCTCCTGTAGGGGTTCTAAAGGACAGCACCAGCGGGACAGCCCACAAGGCTGGGGCTG
GAGAATGAGAGACTGCGCTCTCTTGGGGCTGAGGGAGCACCATGCAGCTTCACCCCTCACAAAGCCATGCACGCT
GGGGGCTCTGTTTTCCTGCACACTAAATAGCTAGCAATCTATGCAAACACCTTTCCCATAAAGAAACCAAACCCC
ATAGTACAGTGCCTTGTCCTAGTGTTCACATGTTCAGCTCTGTTTGTTTAGATGCCAAGGTTTCCATTTTCAGGG
CTATAAAAAGTATTACTTGGAAATGAGGCATCAGACCACCAGATGTTACCGCTCGGTTGAATGTGTCCACCGTGG
AGTGGTTTGGTGACGCTGTAACCATTCCACGCCAGTGACCTCTGCTGGGTCACAGCCACTCAGGAGGGGAAGGGT
CAGGATGAGAGGCTGCAGCCTCGACACTTGGCGCGGCCTGATACTGAAATAGCGTCTACTCGTGCACTGAATAAA
AACAGAAACTTGATCATTTTATTCCTGATTAGATTTATCACTCTCTGCTAAGACAATATAGTCTGGAGTATAAG
TGGGAAAGCTTGATTTAAATACTGTGAACTCTAATAATGTGGAAAATATTTTTCAACTTTAATTTTCTGAAGTAT
AAATTATTTATGTAAATTCATTGTTTTTGCATATTCTTAGGACATGCATCTTTAAGCTTTATCATTGCCCATAT
GTACAGAAAGAGAATAAAGACATATGTTTATGGATGAAAAAAAAAAAAAAAA
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FIGURE 1530

MAESYQGKLRTMMAQFPTAMNGGPNMWAITSEERTKHDRQFDNLKPSGGYITGDQARNFFLQSGLPAPVLAEIWA
LSDLNKDGKMDQQEFSIAMKLIKLKLQGQQLPVVLPPIMKQPPMFSPLISARFGMGSMPNLSIPQPLPPAAPITS
LSSATSGTNLPPLMMPTPLVPSVSTSSLPNGTASLIQPLPIPYSSSTLPHGSSYSLMMGGFGGASIQKAQSLIDL
GSSSSTSSTASLSGNSPKTGTSEWAVPQPTRLKYRQKFNTLDKSMSGYLSGFQARNALLQSNLSQTQLATIWTLA
DVDGDGQLKAEEFILAMHLTDMAKAGQPLPLTLPPELVPPSFRGGKQIDSINGTLPSYQKMQEEEPQKKLPVTFE
DKRKANYERGNMELEKRRQALMEQQQREAERKAQKEKEEWERKQRELQEQEWKKQLELEKRLEKQRELERQREEE
RRKDIERREAAKQELERQRRLEWERIRRQELLNQKNREQEEIVRLNSKKKNLHLELEALNGKHQQISGRLQDVRL
KKQTQKTELEVLDKQCDLEIMEIKQLQQELQEYQNKLIYLVPEKQLLNERIKNMQFSNTPDSGVSLLHKKSLEKE
ELCQRLKEQLDALEKETASKLSEMDSFNNQLKELRETYNTQQLALEQLYKIKRDKLKEIERKRLELMQKKKLEDE
AARKAKQGKENLWKENLRKEEEEKQKRLQEEKTQEKIQEEERKAEEKQRKDKDTLKAEEKKRETASVLVNYRALY
PFEARNHDEMSFNSGDIIQVDEKTVGEPGWLYGSFQGNFGWFPCNYVEKMPSSENEKAVSPKKALLPPTVSLSAT
STSSEPLSSNQPASVTDYQNVSFSNLTVNTSWQKKSAFTRTVSPGSVSPIHGQGQVVENLKAQALCSWTAKKDNH
LNFSKHDIITVLEQQENWWFGEVHGGRGWFPKSYVKIIPGSEVKREEPEALYAAVNKKPTSAAYSVGEEYIALYP
YSSVEPGDLTFTEGEEILVTQKDGEWWTGSIGDRSGIFPSNYVKPKDQESFGSASKSGASNKKPEIAQVTSAYVA
SGSEQLSLAPGQLILILKKNTSGWWQGELQARGKKRQKGWFPASHVKLLGPSSERATPAFHPVCQVIAMYDYAAN
NEDELSFSKGQLINVMNKDDPDWWQGEINGVTGLFPSNYVKMTTDSDPSQQWCADLQTLDTMQPIERKRQGYIHE
LIQTEERYMADLQLVVEVFQKRMAESGFLTEGEMALIFVNWKELIMSNTKLLKALRVRKKTGGEKMPVQMIGDIL
AAELSHMQAYIRFCSCQLNGAALLQQKTDEDTDFKEFLKKLASDPRCKGMPLSSFLLKPMQRITRYPLLIRSILE
NTPESHADHSSLKLALERAEELCSQVNEGVREKENSDRLEWIQAHVQCEGLAEQLIFNSLTNCLGPRKLLHSGKL
YKTKSNKELHGFLFNDFLLLTYMVKQFAVSSGSEKLFSSKSNAQFKMYKTPIFLNEVLVKLPTDPSSDEPVFHIS
HIDRVYTLRTDNINERTAWVQKIKAASEQYIDTEKKQREKAYQARSQKTSGIGRLMVHVIEATELKACKPNGKSN
PYCEISMGSQSYTTRTIQDTLNPKWNFNCQFFIKDLYQDVLCLTLFDRDQFSPDDFLGRTEIPVAKIRTEQESKG
PMTRRLLLHEVPTGEVWVRFDLQLFEQKTLL

FIGURE 1531

CCTGTGAACACTATAGCGCTGAGAGAGACAGTCTGAAAGCAGAGGAAGACATCGATCAGTAACACCAAGAGACAC
CAAAGTTGAAAGTTTTGTTTTCTTTCCCTCTGTTTTATTTTTCCCCCGTGTGTCCCTACT**ATG**GTCAGAAAGCCT
GTTGTGTCCACCATCTCCAAAGGAGGTTACCTGCAGGGAAATGTTAACGGGAGGCTGCCTTCCCTGGGCAACAAG
GAGCCACCTGGGCAGGAGAAAGTGCAGCTGAAGAGGAAAGTCACTTTACTGAGGGGAGTCTCCATTATCATTGGC
ACCATCATTGGAGCAGGAATCTTCATCTCTCCTAAGGGCGTGCTCCAGAACACGGGCAGCGTGGGCATGTCTCTG
ACCATCTGGACGGTGTGTGGGGTCCTGTCACTATTTGGAGCTTTGTCTTATGCTGAATTGGGAACAACTATAAAG
AAATCTGGAGGTCATTACACATATATTTTGGAAGTCTTTGGTCCATTACCAGCTTTTGTACGAGTCTGGGTGGAA
CTCCTCATAATACGCCCTGCAGCTACTGCTGTGATATCCCTGGCATTTGGACGCTACATTCTGGAACCATTTTTT
ATTCAATGTGAAATCCCTGAACTTGCGATCAAGCTCATTACAGCTGTGGGCATAACTGTAGTGATGGTCCTAAAT
AGCATGAGTGTCAGCTGGAGCGCCCGGATCCAGATTTTCTTAACCTTTTGCAAGCTCACAGCAATTCTGATAATT
ATAGTCCCTGGAGTTATGCAGCTAATTAAAGGTCAAACGCAGAACTTTAAAGACGCCTTTTCAGGAAGAGATTCA
AGTATTACGCGGTTGCCACTGGCTTTTTATTATGGAATGTATGCATATGCTGGCTGGTTTTACCTCAACTTTGTT
ACTGAAGAAGTAGAAAACCCTGAAAAAACCATTCCCCTTGCAATATGTATATCCATGGCCATTGTCACCATTGGC
TATGTGCTGACAAATGTGGCCTACTTTACGACCATTAATGCTGAGGAGCTGCTGCTTTCAAATGCAGTGGCAGTG
ACCTTTTCTGAGCGGCTACTGGGAAATTTCTCATTAGCAGTTCCGATCTTTGTTGCCCTCTCCTGCTTTGGCTCC
ATGAACGGTGGTGTGTTTGCTGTCTCCAGGTTATTCTATGTTGCGTCTCGAGAGGGTCACCTTCCAGAAATCCTC
TCCATGATTCATGTCCGCAAGCACACTCCTCTACCAGCTGTTATTGTTTTGCACCCTTTGACAATGATAATGCTC
TTCTCTGGAGACCTCGACAGTCTTTTGAATTTCCTCAGTTTTGCCAGGTGGCTTTTTATTGGGCTGGCAGTTGCT
GGGCTGATTTATCTTCGATACAAATGCCCAGATATGCATCGTCCTTTCAAGGTGCCACTGTTCATCCCAGCTTTG
TTTTCCTTCACATGCCTCTTCATGGTTGCCCTTTCCCTCTATTCGGACCCATTTAGTACAGGGATTGGCTTCGTC
ATCACTCTGACTGGAGTCCCTGCGTATTATCTCTTTATTATATGGGACAAGAAACCCAGGTGGTTTAGAATAATG
TCAGGGTTCCTAGCACTGATGCCTGCACAAGCATGTGATATG**TGA**AATAAAATGGATTCTTCTATAGCTAAATGA
GTTCCCTCTGGGGAGAGTTCTGGTACTGCAATCACAATGCCAGATGGTGTTTATGGGCTATTTGTGTAAGTAAGT
GGTAAGATGCTATGAAGTAAGTGTGTTTGTTTTCATCTTATGGAAACTCTTGATGCATGTGCTTTTGTATGGAAT
AAATTTTGGTGCAATATGATGTCATTCAACTTTGCATTGAATTGAATTTTGGTTGTATTTATATGTATTATACCT
GTCACGCTTCTAGTTGCTTCAACCATTTTATAACCATTTTGTACATATTTTACTTGAAAATATTTTAAATGGAA
ATTTAAATAAACATTTGATAGTTTACATAATAAAAAAAAAAAAAAAAAAAA